



Maintenance and Service Guide

Evo Notebook N800c,
Evo Notebook N800v,
Evo Notebook N800w, and
Presario 2800 Mobile PC Series

Document Part Number: 268135-003

January 2003

This guide is a troubleshooting reference used for maintaining and servicing the notebook. It provides comprehensive information on identifying computer features, components, and spare parts, troubleshooting computer problems, and performing computer disassembly procedures.

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Maintenance and Service Guide

Third Edition January 2003

Second Edition October 2002

First Edition April 2002

Document Part Number: 268135-003

Contents

1 Product Description

- 1.1 Models 1–2
- 1.2 Features 1–41
- 1.3 Clearing a Password. 1–43
- 1.4 Power Management 1–44
- 1.5 Computer External Components 1–45
- 1.6 Design Overview 1–55

2 Troubleshooting

- 2.1 Computer Setup and Diagnostics Utilities 2–1
 - Selecting Computer Setup or
Compaq Diagnostics 2–1
 - Selecting from the File Menu 2–3
 - Selecting from the Security Menu 2–4
 - Selecting from the Advanced Menu. 2–5
- 2.2 Using Compaq Diagnostics 2–7
 - Obtaining, Saving, or Printing
Configuration Information 2–7
 - Obtaining, Saving, or Printing Diagnostic
Test Information. 2–8
- 2.3 Troubleshooting Flowcharts. 2–10

3 Illustrated Parts Catalog

3.1	Serial Number Location	3-1
3.2	Computer System Major Components	3-2
3.3	Miscellaneous Plastics/Hardware Kit Components	3-16
3.4	Mass Storage Devices	3-18
3.5	Miscellaneous.	3-20

4 Removal and Replacement Preliminaries

4.1	Tools Required.	4-1
4.2	Service Considerations.	4-2
	Plastic Parts	4-2
	Cables and Connectors.	4-2
4.3	Preventing Damage to Removable Drives	4-3
4.4	Preventing Electrostatic Damage	4-4
4.5	Packaging and Transporting Precautions.	4-4
4.6	Workstation Precautions	4-5
4.7	Grounding Equipment and Methods	4-6

5 Removal and Replacement Procedures

5.1	Serial Number	5-2
5.2	Disassembly Sequence Chart	5-2
5.3	Preparing the Computer for Disassembly	5-4
5.4	Computer Feet	5-9
5.5	Memory Expansion Board	5-9
5.6	Mini PCI Communications Board	5-12
5.7	Connector Cover	5-15
5.8	LED Cover	5-16
5.9	Keyboard	5-18
5.10	Display	5-22
5.11	Top Cover.	5-26
5.12	Speaker Assembly	5-31

5.13 Display Release Assembly	5–33
5.14 TouchPad	5–35
5.15 Fan	5–38
5.16 Processor	5–40
5.17 Disk Cell RTC Battery	5–42
5.18 System Board	5–44
5.19 Modem Cable	5–49

6 Specifications

A Connector Pin Assignments

B Power Cord Set Requirements

3-Conductor Power Cord Set	B–1
General Requirements	B–1
Country-Specific Requirements	B–2

C Screw Listing

Index

Product Description

The Compaq Presario 2800 and Evo Notebook N800 Series of Personal Computers offer advanced modularity, Intel Mobile Pentium 4 processors with SpeedStep technology with 64-bit architecture, industry-leading Accelerated Graphics Port (AGP) implementation, and extensive multimedia support.



Figure 1-1. Compaq Presario 2800 and Evo Notebook N800

1.1 Models

Computer models are shown in Tables 1-1 through 1-4.

**Table 1-1
Compaq Evo Notebook N800c, Evo Notebook N800v,
Evo Notebook 800w, and Presario 2800 Model Naming Conventions**

Key									
N800w	P	220	U5	60	W	C	51	O	XXXXXX-XXX
1	2	3	4	5	6	7	8	9	10
Key	Description	Options							
1	Brand/Series designator	N = Evo Notebook P = Presario				800 = 800 Series 2800 = 2800 Series			
2	Processor type	P = Intel Pentium 4							
3	Processor speed	220 = 2.2 GHz 200 = 2.0 GHz 190 = 1.9 GHz 180 = 1.8 GHz				170 = 1.7 GHz 160 = 1.6 GHz 150 = 1.5 GHz 140 = 1.4 GHz			
4	Display type/size/resolution	U = UXGA (1600 × 1200) P = SXGA+ (1400 × 1050) X = XGA (1024 × 768)				5 = 15.x-inch 4 = 14.x-inch			
5	Hard drive size	60 = 60 GB 40 = 40 GB				30 = 30 GB 20 = 20 GB			
6	Optical drive designator	D = CD-ROM drive R = CD-RW drive V = DVD-ROM drive				W = DVD-RW drive Z = DVD/CD-RW drive			
7	Integrated communication	M = modem 0 = none				C = modem/NIC combination card			
8	RAM	51 = 512 MB 38 = 384 MB				25 = 256 MB 12 = 128 MB			
9	Operating system	2 = Windows 2000				O = Windows XP Pro E = Windows XP Home			
10	SKU#								

Table 1-2
Compaq Evo Notebook N800c Models

The following Compaq Evo Notebook N800c models feature:

- Dual pointing device (TouchPad and pointing stick)
- 8-cell, 4.0 Ah lithium ion (Li ion) battery pack
- 32 MB discrete video memory
- 3-year warranty on parts, labor, and on-site, next business day response

N800c	P	170	P5	30	V	C	25	2	
United States			470041-454						
N800c	P	170	P5	30	V	C	25	O	
United States			470041-455						
N800c	P	170	P5	30	0	C	0	2	
United States			470041-456						
N800c	P	170	P5	30	0	C	0	O	
United States			470041-457						

Table 1-2
Compaq Evo Notebook N800c Models (Continued)

The following Compaq Evo Notebook N800c models use config. code **KLMZ** and feature:

- Dual pointing device (TouchPad and pointing stick)
- 8-cell, 4.0 Ah Li ion battery pack
- 32 MB discrete video memory
- 3-year warranty on parts and labor, 2-year warranty on on-site, next business day response

N800c	P	200	P5	30	V	C	25	2	
Asia Pacific					470049-178	Latin America			470049-171
Australia					470049-174	(NAFTA)			
Belgium					470049-142	The Netherlands			470049-152
Brazil					470049-172	Norway			470049-154
Czech Republic					470049-143	People's			470049-180
Denmark					470049-144	Republic			
European					470049-145	of China			
International						Portugal			470049-155
France					470049-146	Russia			470049-157
French Canada					470049-139	Saudi Arabia			470049-141
Germany					470049-147	Slovenia			470049-158
Greece/Poland					470049-148	Spain			470049-159
Hong Kong					470049-182	Sweden/Finland			470049-160
Hungary					470049-149	Switzerland			470049-162
India					470049-179	Taiwan			470049-181
Israel					470049-150	Thailand			470049-177
Italy					470049-151	Turkey			470049-167
Japan					470049-169	United Kingdom			470049-168
Korea					470049-183	United States			470049-138
Latin America					470049-170				

Table 1-2
Compaq Evo Notebook N800c Models (Continued)

N800C	P	200	P5	30	V	C	25	O	
Asia Pacific						Latin America			470049-115
Australia						(NAFTA)			
Belgium						The Netherlands			470049-094
Brazil						Norway			470049-096
Czech Republic						People's			470049-129
Denmark						Republic			
European						of China			
International						Portugal			470049-097
France						Russia			470049-098
French Canada						Saudi Arabia			470049-079
Germany						Slovenia			470049-099
Greece/Poland						Spain			470049-100
Hong Kong						Sweden/Finland			470049-101
Hungary						Switzerland			470049-105
India						Taiwan			470049-132
Israel						Thailand			470049-120
Italy						Turkey			470049-107
Japan						United Kingdom			470049-108
Korea						United States			470049-077
Latin America									

Table 1-2
Compaq Evo Notebook N800c Models (Continued)

The following Compaq Evo Notebook N800c models use config. code **KLMZ** and feature:

- Dual pointing device (TouchPad and pointing stick)
- 8-cell, 4.0 Ah Li ion battery pack
- 32 MB discrete video memory
- 3-year warranty on parts and labor

N800c	P	180	U5	60	W	C	51	O	
Belgium			470035-393			The Netherlands			470035-436
Czech Republic			470035-396			Norway			470035-440
Denmark			470035-399			Portugal			470035-449
European International			470035-412			Russia			470035-459
France			470035-416			Saudi Arabia			470035-373
Germany			470035-420			Slovenia			470035-462
Greece/Poland			470035-424			Spain			470035-465
Hungary			470035-427			Sweden/Finland			470035-468
Israel			470035-430			Switzerland			470035-471
Italy			470035-433			Turkey			470035-474
						United Kingdom			470035-477
N800c	P	180	P5	60	W	C	51	2	
Asia Pacific			470035-264			Latin America (NAFTA)			470035-210
Australia			470035-259			People's Republic of China			470035-271
Brazil			470035-253			Taiwan			470035-274
French Canada			470035-197			United States			470035-190
Hong Kong			470035-280						
Japan			470035-204						
Korea			470035-284						
Latin America			470035-209						

Table 1-2
Compaq Evo Notebook N800c Models (Continued)

N800c	P	180	P5	60	W	C	51	O	
Asia Pacific			470035-307			Latin America			470035-299
Australia			470035-305			(NAFTA)			
Brazil			470035-302			People's			470035-308
French Canada			470035-293			Republic			
Hong Kong			470035-310			of China			
Japan			470035-295			Taiwan			470035-309
Korea			470035-319			United States			470035-289
Latin America			470035-297						
N800c	P	170	P5	40	W	C	25	2	
Asia Pacific			470035-304			Latin America			470035-294
Australia			470035-301			(NAFTA)			
Brazil			470035-298			People's			470035-311
French Canada			470035-282			Republic			
Hong Kong			470035-315			of China			
Japan			470035-287			Taiwan			470035-313
Korea			470035-317			United States			470035-278
Latin America			470035-290						
N800c	P	170	P5	40	W	C	25	O	
Asia Pacific			470035-303			Latin America			470035-292
Australia			470035-300			(NAFTA)			
Brazil			470035-296			People's			470035-306
French Canada			470035-281			Republic			
Hong Kong			470035-314			of China			
Japan			470035-285			Taiwan			470035-312
Korea			470035-316			United States			470035-276
Latin America			470035-288						

Table 1-2
Compaq Evo Notebook N800c Models (Continued)

N800c	P	170	X5	30	V	C	25	2	
Asia Pacific			470035-260			Latin America			470035-254
Australia			470035-258			(NAFTA)			
Belgium			470035-228			The Netherlands			470035-238
Brazil			470035-256			Norway			470035-239
Czech Republic			470035-229			People's			470035-262
Denmark			470035-230			Republic			
European			470035-231			of China			
International						Portugal			470035-240
France			470035-232			Russia			470035-241
French Canada			470035-226			Saudi Arabia			470035-227
Germany			470035-233			Slovenia			470035-243
Greece/Poland			470035-234			Spain			470035-244
Hong Kong			470035-266			Sweden/Finland			470035-245
Hungary			470035-235			Switzerland			470035-247
Israel			470035-236			Taiwan			470035-265
Italy			470035-237			Turkey			470035-248
Japan			470035-250			United Kingdom			470035-249
Korea			470035-268			United States			470035-225
Latin America			470035-252						

Table 1-2
Compaq Evo Notebook N800c Models (Continued)

N800c	P	170	X5	30	V	C	25	O	
Asia Pacific			470035-033			Latin America			470035-048
Australia			470035-031			(NAFTA)			
Belgium			470035-008			The Netherlands			470035-018
Brazil			470035-030			Norway			470035-019
Czech Republic			470035-009			People's			470035-035
Denmark			470035-010			Republic			
European			470035-011			of China			
International						Portugal			470035-020
France			470035-012			Russia			470035-021
French Canada			470035-006			Saudi Arabia			470035-007
Germany			470035-013			Slovenia			470035-022
Greece/Poland			470035-014			Spain			470035-023
Hong Kong			470035-038			Sweden/Finland			470035-024
Hungary			470035-015			Switzerland			470035-025
Israel			470035-016			Taiwan			470035-036
Italy			470035-017			Turkey			470035-026
Japan			470035-028			United Kingdom			470035-027
Korea			470035-040			United States			470035-005
Latin America			470035-029						
N800c	P	160	X5	20	V	C	25	2	
Asia Pacific			470035-203			Latin America			470035-196
Australia			470035-201			(NAFTA)			
Brazil			470035-199			People's			470035-206
French Canada			470035-192			Republic			
Hong Kong			470035-211			of China			
Japan			470035-193			Taiwan			470035-208
Korea			470035-212			United States			470035-191
Latin America			470035-194						

Table 1-2
Compaq Evo Notebook N800c Models (Continued)

N800c	P	160	X5	20	V	C	25	O	
Asia Pacific			470035-220			Latin America			470035-217
Australia			470035-219			(NAFTA)			
Brazil			470035-218			People's			470035-221
French Canada			470035-214			Republic			
Hong Kong			470035-223			of China			
Japan			470035-215			Taiwan			470035-222
Korea			470035-224			United States			470035-213
Latin America			470035-216						
N800c	P	160	X5	20	D	C	25	2	
Belgium			470035-375			The Netherlands			470035-434
Czech Republic			470035-394			Norway			470035-437
Denmark			470035-397			Portugal			470035-447
European						Russia			470035-457
International			470035-410			Saudi Arabia			470035-369
France			470035-413			Slovenia			470035-460
Germany			470035-417			Spain			470035-463
Greece/Poland			470035-422			Sweden/Finland			470035-466
Hungary			470035-425			Switzerland			470035-469
Israel			470035-428			Turkey			470035-472
Italy			470035-431			United Kingdom			470035-475
N800c	P	160	X5	20	D	C	25	O	
Belgium			470035-377			The Netherlands			470035-435
Czech Republic			470035-395			Norway			470035-439
Denmark			470035-398			Portugal			470035-448
European			470035-411			Russia			470035-458
International						Saudi Arabia			470035-370
France			470035-415			Slovenia			470035-461
Germany			470035-418			Spain			470035-464
Greece/Poland			470035-423			Sweden/Finland			470035-467
Hungary			470035-426			Switzerland			470035-470
Israel			470035-429			Turkey			470035-473
Italy			470035-432			United Kingdom			470035-476

Table 1-3
Compaq Evo Notebook N800v Models

The following Compaq Evo Notebook N800v models use config. code **KSQZ** and feature:

- TouchPad pointing device
- 8-cell, 4.4 Ah Li ion battery pack
- 64 MB of discrete video memory
- 1-year warranty on parts and labor

N800v	P	200	P5	40	W	C	25	O		
French Canada						470044-432		United States		470044-406

The following Compaq Evo Notebook N800v models use config. code **KSQZ** and feature:

- TouchPad
- 8-cell, 4.4 Ah Li ion battery pack
- 32 MB of discrete video memory
- 2-year warranty on parts and labor

N800V	P	200	P5	40	W	C	51	2	
Germany						470053-908			
N800V	P	200	P5	40	W	C	51	O	
Germany						470053-883			

The following Compaq Evo Notebook N800v model uses config. code **KSRZ** and feature:

- TouchPad pointing device
- 8-cell, 4.0 Ah Li ion battery pack
- 2-year warranty on parts and labor

N800v	P	160	X4	20	V	C	25	O	
Germany						470035-291			

Table 1-3
Compaq Evo Notebook N800v Models (Continued)

The following Compaq Evo Notebook N800v models use config. code **KSRZ** and feature:

- TouchPad
- 8-cell, 4.4 Ah Li ion battery pack
- 32 MB of discrete video memory
- 2-year warranty on parts and labor

N800V	P	180	P5	40	W	C	51	2	
Germany						470053-801			
N800V	P	180	P5	40	W	C	25	O	
Germany						470053-767			
N800V	P	180	X4	30	V	C	25	2	
Germany						470053-856			
N800V	P	180	X4	30	V	C	25	O	
Germany						470053-829			
N800v	P	170	P5	40	W	C	25	2	
Germany						470045-606			
N800v	P	170	P5	40	W	C	25	O	
Germany						470045-605			
N800V	P	170	X4	30	V	C	25	2	
Germany						470045-608			
N800V	P	170	X4	30	V	C	25	O	
Germany						470045-607			

Table 1-3
Compaq Evo Notebook N800v Models (Continued)

The following Compaq Evo Notebook N800v models use config. code **KSQZ** and feature:

- TouchPad
- 8-cell, 4.4 Ah Li ion battery pack
- 32 MB of discrete video memory
- 1-year warranty on parts and labor

N800V	P	200	P5	40	W	C	25	2	
Belgium					470053-885	Norway			470053-898
Czech Republic					470053-886	Portugal			470053-899
Denmark					470053-888	Russia			470053-901
European International					470053-889	Saudi Arabia			470053-884
France					470053-890	Slovenia			470053-902
Greece/Poland					470053-892	Spain			470053-903
Hungary					470053-893	Sweden/Finland			470053-904
Israel					470053-894	Switzerland			470053-905
Italy					470053-895	Turkey			470053-906
The Netherlands					470053-896	United Kingdom			470053-907
N800V	P	200	P5	40	W	C	25	O	
Belgium					470053-858	Norway			470056-874
Czech Republic					470053-859	Portugal			470053-875
Denmark					470053-860	Russia			470053-876
European International					470053-861	Saudi Arabia			470053-877
France					470053-866	Slovenia			470053-857
Greece/Poland					470053-867	Spain			470053-878
Hungary					470053-868	Sweden/Finland			470053-879
Israel					470053-869	Switzerland			470053-880
Italy					470053-871	Turkey			470053-881
The Netherlands					470053-873	United Kingdom			470053-882

Table 1-3
Compaq Evo Notebook N800v Models (Continued)

N800V	P	180	P5	40	W	C	25	2	
Belgium			470053-770			Norway		470053-788	
Czech Republic			470053-771			Portugal		470053-789	
Denmark			470053-772			Russia		470053-790	
European International			470053-775			Saudi Arabia		470053-769	
France			470053-776			Slovenia		470053-791	
Greece/Poland			470053-779			Spain		470053-795	
Hungary			470053-780			Sweden/Finland		470053-796	
Israel			470053-781			Switzerland		470053-797	
Italy			470053-786			Turkey		470053-798	
The Netherlands			470053-787			United Kingdom		470053-800	
N800V	P	180	P5	40	W	C	25	O	
Belgium			470053-739			Norway		470053-754	
Czech Republic			470053-740			Portugal		470053-755	
Denmark			470053-746			Russia		470053-756	
European International			470053-747			Saudi Arabia		470053-738	
France			470053-748			Slovenia		470053-757	
Greece/Poland			470053-749			Spain		470053-758	
Hungary			470053-750			Sweden/Finland		470053-759	
Israel			470053-751			Switzerland		470053-760	
Italy			470053-752			Turkey		470053-765	
The Netherlands			470053-753			United Kingdom		470053-766	

Table 1-3
Compaq Evo Notebook N800v Models (Continued)

N800V	P	180	X4	30	V	C	25	2	
Belgium					470053-831	Norway			470053-847
Czech Republic					470053-836	Portugal			470053-848
Denmark					470053-838	Russia			470053-849
European International					470053-839	Saudi Arabia			470053-850
France					470053-841	Slovenia			470053-830
Greece/Poland					470053-842	Spain			470053-851
Hungary					470053-843	Sweden/Finland			470053-852
Israel					470053-844	Switzerland			470053-853
Italy					470053-845	Turkey			470053-854
The Netherlands					470053-846	United Kingdom			470053-855
N800V	P	180	X4	30	V	C	25	O	
Belgium					470053-804	Norway			470053-816
Czech Republic					470053-806	Portugal			470053-817
Denmark					470053-808	Russia			470053-818
European International					470053-809	Saudi Arabia			470053-803
France					470053-810	Slovenia			470053-819
Greece/Poland					470053-811	Spain			470053-820
Hungary					470053-812	Sweden/Finland			470053-821
Israel					470053-813	Switzerland			470053-822
Italy					470053-814	Turkey			470053-823
The Netherlands					470053-815	United Kingdom			470053-827

Table 1-3
Compaq Evo Notebook N800v Models (Continued)

The following Compaq Evo Notebook N800v models use config. code **KSQZ** and feature:

- TouchPad pointing device
- 8-cell, 4.4 Ah Li ion battery pack
- 32 MB of discrete video memory
- 1-year warranty on parts and labor

N800v	P	170	P5	40	W	C	25	2	
Belgium					470044-531	Norway			470044-541
Czech Republic					470044-532	Portugal			470044-542
Denmark					470044-533	Russia			470044-543
European International					470044-534	Saudi Arabia			470044-530
France					470044-535	Slovenia			470044-544
Greece/Poland					470044-536	Spain			470044-545
Hungary					470044-537	Sweden			470044-546
Israel					470044-538	Switzerland			470044-547
Italy					470044-539	Turkey			470044-548
The Netherlands					470044-540	United Kingdom			470044-549

N800v	P	170	P5	40	W	C	25	O	
Belgium					470044-486	Norway			470044-512
Czech Republic					470044-488	Portugal			470044-514
Denmark					470044-496	Russia			470044-516
European International					470044-501	Saudi Arabia			470044-483
France					470044-503	Slovenia			470044-518
Greece/Poland					470044-505	Spain			470044-520
Hungary					470044-506	Sweden			470044-521
Israel					470044-507	Switzerland			470044-523
Italy					470044-508	Turkey			470044-526
The Netherlands					470044-511	United Kingdom			470044-527

Table 1-3
Compaq Evo Notebook N800v Models (Continued)

N800v	P	170	X4	30	V	C	25	2	
Belgium					470044-710	Norway			470044-720
Czech Republic					470044-711	Portugal			470044-721
Denmark					470044-712	Russia			470044-422
European International					470044-713	Saudi Arabia			470044-707
France					470044-714	Slovenia			470044-723
Greece/Poland					470044-715	Spain			470044-724
Hungary					470044-716	Sweden			470044-725
Israel					470044-717	Switzerland			470044-726
Italy					470044-718	Turkey			470044-727
The Netherlands					470044-719	United Kingdom			470044-728
N800v	P	170	X4	30	V	C	25	O	
Belgium					470044-551	Norway			470044-561
Czech Republic					470044-552	Portugal			470044-562
Denmark					470044-553	Russia			470044-563
European International					470044-554	Saudi Arabia			470044-550
France					470044-555	Slovenia			470044-564
Greece/Poland					470044-556	Spain			470044-565
Hungary					470044-557	Sweden			470044-566
Israel					470044-558	Switzerland			470044-567
Italy					470044-559	Turkey			470044-568
The Netherlands					470044-560	United Kingdom			470044-569

Table 1-3
Compaq Evo Notebook N800v Models (Continued)

The following Compaq Evo Notebook N800v models use config. code **KSQZ** and feature:

- TouchPad pointing device
- 8-cell, 4.4 Ah Li ion battery pack
- 1-year warranty on parts and labor

N800v	P	170	X4	30	V	C	25	O	
French Canada					470035-200	United States			470035-202
N800v	P	160	P5	30	W	C	25	O	
Belgium					470035-759	Norway			470035-779
Czech Republic					470035-760	Portugal			470035-781
Denmark					470035-763	Russia			470035-782
European International					470035-768	Saudi Arabia			470035-757
France					470035-770	Slovakia			470035-784
Greece/Poland					470035-771	Spain			470035-785
Hungary					470035-773	Sweden/Finland			470035-787
Israel					470035-774	Switzerland			470035-788
Italy					470035-776	Turkey			470035-790
The Netherlands					470035-778	United Kingdom			470035-791
N800v	P	160	X4	20	V	C	25	O	
Belgium					470035-207	Norway			470035-270
Czech Republic					470035-242	Portugal			470035-272
Denmark					470035-246	Russia			470035-273
European International					470034-251	Saudi Arabia			470035-205
France					470035-255	Slovenia			470035-275
French Canada					470035-198	Spain			470035-277
Greece/Poland					470035-257	Sweden/Finland			470035-279
Hungary					470035-261	Switzerland			470035-283
Israel					470035-263	Turkey			470035-286
Italy					470035-267	United Kingdom			470035-703
The Netherlands					470035-269	United States			470035-195

Table 1-4
Compaq Evo Notebook N800w Models

The following Compaq Evo Notebook N800w models feature:

- Dual pointing device (TouchPad and pointing stick)
- 8-cell, 4.4 Ah Li ion battery pack
- 64 MB of discrete video memory
- 3-year warranty on parts, labor, and on-site, next business day response

N800w	P	220	U5	60	W	C	51	2	
Asia Pacific			470052-392			Korea			470052-399
Australia			470052-390			Latin America			470052-388
Belgium			470052-362			The Netherlands			470052-368
Denmark			470052-363			People's			
European			470052-364			Republic			
International						of China			470052-393
France			470052-365			Spain			470052-369
French Canada			470052-421			Sweden/Finland			470052-375
Germany			470052-366			Switzerland			470052-385
Hong Kong			470052-397			Taiwan			470052-396
Italy			470052-367			United Kingdom			470052-387
Japan			470052-401			United States			470052-128
N800w	P	220	U5	60	W	C	51	O	
Asia Pacific			470052-416			Latin America			470052-414
Australia			470052-415			The Netherlands			470052-409
Belgium			470052-402			People's			
Denmark			470052-403			Republic			
European			470052-404			of China			470052-417
International						Spain			470052-410
France			470052-405			Sweden/Finland			470052-411
French Canada			470052-422			Switzerland			470052-412
Germany			470052-406			Taiwan			470052-418
Hong Kong			470052-419			United Kingdom			470052-413
Italy			470052-408			United States			470052-361
Korea			470052-420						

**Table 1-4
Compaq Evo Notebook N800w Models (Continued)**

The following Compaq Evo Notebook N800w models use config. code **LDF1** and feature:

- Dual pointing device (TouchPad and pointing stick)
- 8-cell, 4.4 Ah Li ion battery pack
- 64 MB of discrete video memory
- 3-year warranty on parts, labor, and on-site, next business day response

N800w	P	220	U5	60	W	C	51	2			
French Canada						470043-588				United States	470043-584
N800w	P	220	U5	60	W	C	51	O			
French Canada						470043-575				United States	470043-574

The following Compaq Evo Notebook N800w models use config. code **LDFZ** and feature:

- Dual pointing device (TouchPad and pointing stick)
- 8-cell, 4.4 Ah Li ion battery pack
- 64 MB of discrete video memory
- 3-year warranty on parts and labor

N800w	P	220	U5	60	W	C	51	O	
Asia Pacific									470043-590
Australia									470043-589
Belgium									470043-576
European International									470047-495
France									470043-578
Germany									470043-579
Hong Kong									470043-594
Italy									470043-580
Korea									470043-595
Latin America									470043-587
The Netherlands									470043-581
People's Republic of China									470043-591
Sweden/Finland									470051-460
Spain									470043-583
Switzerland									470043-585
Taiwan									470043-593
United Kingdom									470043-586

Table 1-4
Compaq Evo Notebook N800w Models (Continued)

The following Compaq Evo Notebook N800w models use config. code **LDFZ** and feature:

- Dual pointing device (TouchPad and pointing stick)
- 8-cell, 4.4 Ah Li ion battery pack
- 64 MB of discrete video memory
- 3-year warranty on parts and labor

N800w	P	220	U5	60	W	C	51	2	
Asia Pacific			470043-608			Latin America		470043-605	
Australia			470043-606			The Netherlands		470043-599	
Belgium			470043-592			People's		470043-609	
European			470047-493			Republic			
International						of China			
France			470043-596			Spain		470043-600	
Germany			470043-597			Sweden/Finland		470051-457	
Hong Kong			470043-611			Switzerland		470043-602	
Italy			470043-598			Taiwan		470043-610	
Japan			470051-459			United Kingdom		470043-604	
Korea			470043-612						
N800w	P	200	P5	60	D	C	51	2	
Japan			470051-463						
N800w	P	200	P5	40	W	C	25	2	
Belgium			470043-614			The Netherlands		470043-618	
European			470047-496			Spain		470043-619	
International						Sweden/Finland		470051-461	
France			470043-615			Switzerland		470043-620	
Germany			470043-616			United Kingdom		470043-621	
Italy			470043-617						
N800w	P	200	P5	40	W	C	25	O	
Belgium			470043-623			The Netherlands		470043-633	
European			470047-497			Spain		470043-634	
International						Sweden/Finland		470051-462	
France			470043-624			Switzerland		470043-635	
Germany			470043-625			United Kingdom		470043-636	
Italy			470043-626						

**Table 1-5
Compaq Presario 2800 Models**

The following Compaq Presario 2800 models are available in the United States and feature:

- TouchPad pointing device
- 8-cell, 4.0 Ah Li ion battery pack
- 32 MB discrete video memory
- 1-year warranty on parts and labor

P2800	P	170	P5	30	W	C	25	E	281630-001
This model includes a MultiPort 802.11b wireless communication device, MultiBay battery pack, and diskette drive.									config. code KSQ1
P2810	P	150	P5	30	W	C	51	E	470033-094
This model includes a MultiPort 802.11b wireless communication device and a MultiBay battery pack.									config. code KSQ3
P2800	P	140	X5	30	W	C	51	E	470033-089
									config. code KSQ2
P2801	P	140	X5	30	W	C	38	E	470034-500
									config. code KSQ4
P2805	P	140	X4	20	W	C	25	E	470034-503
									config. code KSQ5

Table 1-5
Compaq Presario 2800 Models (Continued)

The following Compaq Presario 2800 models use config. code **KSRZ** and feature:

- Diskette drive
- TouchPad pointing device
- 8-cell, 4.4 Ah Li ion battery pack
- 64 MB discrete video memory
- 2-year warranty on parts and labor

P2825	P	190	P5	40	W	C	51	E	
Denmark			470046-888			Italy		470045-614	
Germany			470045-613			Sweden/Finland		470046-889	
P2826	P	190	P5	40	W	C	51	O	
European International			470047-500						
P2822	P	180	X5	40	W	C	25	E	
Sweden/Finland			470047-503						
P2816	P	170	P5	30	W	C	51	E	
Belgium			470034-928			The Netherlands		470034-937	
Denmark			470034-930			Norway		470034-939	
Germany			470034-932			Sweden/Finland		470034-941	
Italy			470034-935						
P2817	P	160	X5	30	W	C	25	E	
Sweden/Finland			470039-466						

Table 1-5
Compaq Presario 2800 Models (Continued)

The following Compaq Presario 2800 models use config. code **KSQZ** and feature:

- Diskette drive
- TouchPad
- 8-cell, 4.4 Ah Li ion battery pack
- 64 MB of discrete video memory
- 1-year warranty on parts and labor

P2860	P	220	U5	60	Z	C	51	E	
Australia			470054-681						
P2838	P	220	P5	60	W	C	25	E	
Taiwan			470048-547						
P2832	P	220	P5	40	W	C	51	E	
Hong Kong			470048-542						
P2860	P	220	X5	40	Z	C	51	E	
Hong Kong			470054-680						
P2862	P	220	X5	40	Z	C	25	E	
Korea			470054-682						
P2838	P	220	X5	40	W	C	51	E	
Asia Pacific			470047-539			Australia		470047-533	
2859AP	P	220	X5	40	V	C	25	E	
People's Republic of China			470054-679						
P2830	P	200	U5	60	W	C	51	E	
Asia Pacific			470045-996			Australia		470045-995	
P2822	P	200	P5	40	W	C	51	E	
Hong Kong			470044-692						

**Table 1-5
Compaq Presario 2800 Models (Continued)**

P2827	P	200	P5	40	W	C	25	E	
Taiwan			470044-697						
P2837	P	200	P5	40	V	C	25	E	
Taiwan			470048-546						
P2858	P	200	X5	40	Z	C	51	E	
Korea			470054-678						
P2857	P	200	X5	40	Z	C	25	E	
Asia Pacific			470054-675			Taiwan		470054-677	
India			470054-676			Thailand		470054-674	
P2845	P	200	X5	40	W	C	51	E	
Korea			470051-466			Thailand		470051-465	
P2837	P	200	X5	40	W	C	25	E	
Asia Pacific			470047-516			Korea		470048-533	
India			470050-915			Thailand		470047-515	
P2831	P	200	X5	40	V	C	25	E	
People's Republic of China			470047-505						
P2840	P	200	X4	40	W	C	51	E	
Hong Kong			470050-910						
P2844	P	220	X4	40	W	C	25	E	
Asia Pacific			470050-912						
P2856	P	200	X4	40	V	C	25	E	
People's Republic of China			470054-673						
P2820	P	190	U5	40	W	C	51	E	
Asia Pacific			470044-580			Thailand		470044-579	
Korea			470044-581						

**Table 1-5
Compaq Presario 2800 Models (Continued)**

P2840	P	190	P5	40	W	C	51	E	
Korea			470048-534						
P2825	P	190	P5	40	W	C	51	E	
European International			470044-575			Saudi Arabia		470044-574	
France			470045-992			Switzerland		470046-565	
Greece/Poland			470045-993			Turkey		470046-566	
P2820	P	190	P5	40	W	C	25	E	
Korea			470044-683						
P2826	P	190	P5	30	W	C	25	E	
Taiwan			470044-696						
P2855	P	190	X5	40	Z	C	25	E	
Asia Pacific			470054-669			Taiwan		470054-671	
Hong Kong			470054-672			Thailand		470054-668	
India			470054-670						
2830	P	190	X5	40	V	C	25	E	
People's Republic of China			470047-504						
2836	P	190	X5	30	W	C	25	E	
Asia Pacific			470047-512			Thailand		470047-513	
India			470048-514						
P2820	P	190	X4	40	W	C	25	E	
People's Republic of China			470044-698						
P2832	P	190	X4	30	V	C	25	E	
People's Republic of China			470051-464						

**Table 1-5
Compaq Presario 2800 Models (Continued)**

P2820	P	180	U5	40	W	C	51	E	
Asia Pacific Korea			470036-651 470037-983			Thailand		470037-984	
P2828	P	180	P5	40	W	C	51	E	
Korea			470044-630						
P2821	P	180	P5	40	W	C	51	E	
Hong Kong			470038-884						
P2821	P	180	P5	40	W	C	51	E	
Australia			470044-686						
P2810	P	180	P5	40	W	C	51	E	
People's Republic of China			470037-116						
P2830	P	180	P5	40	W	C	25	E	
Australia			470047-518						
P2823	P	180	P5	40	W	C	25	E	
India			470044-625						
P2815	P	180	P5	40	W	C	25	E	
Australia			470037-986						
P2820	P	180	P5	40	R	C	25	E	
Taiwan			470036-661						
P2822	P	180	X5	40	W	C	25	E	
France			470046-890						
P2831	P	180	X4	40	W	C	25	E	
Hong Kong			470048-541						

**Table 1-5
Compaq Presario 2800 Models (Continued)**

P2835	P	180	X4	30	W	C	25	E	
Asia Pacific			470047-511			Thailand		470047-509	
Hong Kong			470048-532						
P2821	P	180	X4	30	W	C	25	E	
Hong Kong			470044-691						
P2821	P	180	X4	30	V	C	25	E	
People's Republic of China			470044-699						
P2814	P	170	P5	40	W	C	51	E	
Australia			470036-653			Korea		470037-985	
P2816	P	170	P5	30	W	C	51	E	
European International			470034-897			Russia		470034-910	
France			470034-898			Saudi Arabia		470034-893	
Greece/Poland			470034-900			Switzerland		470034-962	
Hungary			470034-902			Turkey		470034-924	
Israel			470034-904			United Kingdom		470034-925	
P2808	P	170	P5	30	W	C	51	O	
European International			470036-402						
P2817	P	170	P5	30	V	C	25	E	
Taiwan			470036-660						
P2818	P	170	X5	40	W	C	25	E	
France			470040-192						
P2806	P	170	X4	40	V	C	25	E	
People's Republic of China			470036-655						

Table 1-5
Compaq Presario 2800 Models (Continued)

P2816	P	170	X4	30	W	C	25	E	
Taiwan			470037-123						
P2818	P	160	P5	40	W	C	25	E	
India			470036-647						
P2817	P	160	X4	40	W	C	25	E	
Hong Kong			470037-371						
P2819	P	160	X4	30	V	C	25	E	
Hong Kong			470037-372						
P2804	P	160	X4	30	V	C	25	E	
People's Republic of China			470036-654						

The following Compaq Presario 2800 models use config. code **KSRZ** and feature:

- Diskette drive
- TouchPad pointing device
- 8-cell, 4.0 Ah Li ion battery pack
- 32 MB discrete video memory
- 2-year warranty on parts and labor

P2821	P	180	X5	30	W	C	51	E	
Denmark			470046-568						
P2820	P	180	X5	30	W	C	25	E	
Germany			470045-609			Spain		470045-611	
Portugal			470045-610						
P2836	P	180	X4	30	W	C	25	E	
Spain			470045-615						

Table 1-5
Compaq Presario 2800 Models (Continued)

P2811	P	160	X5	30	W	C	25	E	
Belgium			470034-946			Norway		470034-940	
Denmark			470034-945			Portugal		470041-458	
Germany			470034-944			Spain		470040-193	
Italy			470034-943			Sweden/Finland		470034-938	
The Netherlands			470034-942						
P2812	P	160	X4	20	W	C	25	E	
Spain			470038-387						
P2801	P	160	X4	20	V	C	25	E	
Belgium			470034-926			The Netherlands		470034-933	
Denmark			470034-927			Norway		470034-934	
Germany			470034-929			Sweden/Finland		470034-936	
Italy			470034-931						
P2815	P	150	P5	30	W	C	25	E	
Belgium			470033-246			The Netherlands		470033-253	
Denmark			470033-247			Norway		470033-254	
Germany			470033-250			Sweden/Finland		470034-319	
Italy			470033-252						
P2810	P	140	X5	30	W	C	25	E	
Belgium			470033-215			The Netherlands		470033-219	
Denmark			470033-216			Norway		470033-220	
Germany			470033-217			Sweden/Finland		470034-318	
Italy			470033-218						
P2805	P	140	X5	20	V	C	25	E	
Belgium			470033-149			The Netherlands		470033-153	
Denmark			470033-150			Norway		470033-154	
Germany			470033-151			Sweden/Finland		470034-317	
Italy			470033-152						

Table 1-5
Compaq Presario 2800 Models (Continued)

P2800	P	140	X4	20	V	C	25	E	
Belgium					470033-124	The Netherlands			470033-128
Denmark					470033-125	Norway			470033-131
Germany					470033-126	Sweden/Finland			470033-459
Italy					470033-127				
The following Compaq Presario 2800 models use config. code KSQZ and feature:									
<ul style="list-style-type: none"> ■ Diskette drive ■ TouchPad ■ 8-cell, 4.4 Ah Li ion battery pack ■ 32 MB of discrete video memory ■ 1-year warranty on parts and labor 									
P2820	P	200	X5	40	W	C	51	E	
United States					470045-990				
P2836	P	200	X4	40	V	C	25	E	
Taiwan					470048-545				
2854AP	P	190	X5	30	Z	C	25	E	
Hong Kong					470054-666	Korea			470054-667
2853AP	P	190	X5	30	V	C	25	E	
Hong Kong					470054-665				
P2839	P	190	X4	40	V	C	25	E	
Taiwan					470050-109				
P2852	P	190	X4	30	V	C	25	E	
Korea					470054-664				
P2851	P	190	X4	30	D	C	25	E	
Korea					470054-663				

**Table 1-5
Compaq Presario 2800 Models (Continued)**

P2850	P	190	X4	30	D	C	12	E	
Asia Pacific			470054-660			Thailand		470054-659	
India			470054-661						
P2811	P	180	X5	40	W	C	51	E	
United States			470037-370						
P2841	P	180	X5	30	W	C	25	E	
Korea			470048-535						
P2821	P	180	X5	30	W	C	25	E	
Asia Pacific			470044-583			Thailand		470044-582	
P2820	P	180	X5	30	W	C	25	E	
European			470044-571			Russia		470046-887	
International						Saudi Arabia		470044-570	
Greece/Poland			470044-572			Switzerland		470052-338	
Hungary			470047-875			Turkey		470046-562	
Israel			470044-573						
P2821	P	180	X5	30	W	C	25	O	
European			470047-498						
International									
P2834	P	180	X4	40	V	C	25	E	
Taiwan			470048-544						
2843	P	180	X4	30	V	C	25	E	
Hong Kong			470048-538			Korea		470048-539	
P2825	P	180	X4	30	V	C	25	E	
Taiwan			470044-695						
2839	P	180	X4	30	V	C	12	E	
Asia Pacific			470052-501			India		470047-520	

Table 1-5
Compaq Presario 2800 Models (Continued)

P2830	P	180	X4	30	D	C	25	E		
Korea						470048-540				
P2833	P	180	X4	20	V	C	25	E		
Taiwan						470048-543				
P2825	P	170	X5	30	W	C	25	E		
Korea						470044-627				
P2819	P	170	X5	30	W	C	25	E		
Asia Pacific						470037-119				
						Thailand		470037-988		
P2824	P	170	X5	30	V	C	12	E		
India						470044-626				
P2826	P	170	X5	30	R	C	25	E		
Korea						470044-628				
P2820	P	170	X5	20	W	C	25	E		
United States						470052-500				
P2827	P	170	X5	20	V	C	25	E		
Korea						470044-629				
P2830	P	170	X4	30	W	C	25	E		
Saudi Arabia						470044-576				
						Turkey				470046-569
P2828	P	170	X4	30	W	C	25	E		
Hong Kong						470045-997				
P2837	P	170	X4	30	W	C	25	O		
Turkey						470048-188				
P2835	P	170	X4	30	V	C	25	E		
European International						470044-578		Saudi Arabia		470044-577

**Table 1-5
Compaq Presario 2800 Models (Continued)**

P2832	P	170	X4	30	V	C	25	E							
Korea					470046-895										
P2829	P	170	X4	30	V	C	25	E							
Taiwan					470046-901										
P2820	P	170	X4	30	V	C	25	E							
Hong Kong					470044-690										
P2831	P	170	X4	30	D	C	25	E							
Korea					470046-897										
P2829	P	170	X4	20	D	C	25	E							
Korea					470044-631										
P2824	P	170	X4	20	V	C	25	E							
Taiwan					470044-694										
P2823	P	170	X4	20	R	C	25	E							
Australia					470044-688										
P2823	P	170	X4	20	D	C	25	E							
Taiwan					470044-693										
P2822	P	170	X4	20	W	C	25	E							
Asia Pacific					470044-624					Thailand	470044-623				
P2820	P	170	X4	20	W	C	25	E							
United States					470052-499										
P2810	P	160	P5	40	W	C	51	E							
Asia Pacific					470033-264					Korea	470033-266				
P2802	P	160	P5	40	W	C	51	E							
People's Republic of China					470033-179										

Table 1-5
Compaq Presario 2800 Models (Continued)

P2810	P	160	P5	40	R	C	25	E			
Hong Kong						470033-190				Taiwan	470033-186
P2818	P	160	X5	30	W	C	25	E			
Korea						470037-982					
P2811	P	160	X5	30	W	C	25	E			
European International						470034-949				Russia	470034-955
France						470034-950				Saudi Arabia	470034-947
Greece/Poland						470034-951				Switzerland	470034-958
Hungary						470034-952				Turkey	470034-959
Israel						470034-953				United Kingdom	470034-960
P2806	P	160	X5	30	W	C	25	O			
European International						470036-400					
P2816	P	160	X5	30	V	C	12	E			
India						470036-646					
P2817	P	160	X5	30	R	C	25	E			
Korea						470037-980					
P2811	P	160	X5	20	W	C	25	E			
Switzerland						470037-978					
P2816	P	160	X5	20	V	C	25	E			
Korea						470037-979					
P2817	P	160	X4	30	W	C	25	E			
France						470040-689					
P2813	P	160	X4	30	W	C	25	E			
Hong Kong						470038-960					

**Table 1-5
Compaq Presario 2800 Models (Continued)**

P2815	P	160	X4	30	V	C	25	E			
Hong Kong						470041-601				Taiwan	470036-659
P2813	P	160	X4	30	R	C	25	E			
Australia						470036-652					
P2817	P	160	X4	20	W	C	25	E			
Saudi Arabia						470038-963					
P2814	P	160	X4	20	W	C	25	E			
Asia Pacific						470037-987				Thailand	470036-656
P2801	P	160	X4	20	W	C	25	E			
Turkey						470043-744					
P2801	P	160	X4	20	V	C	25	E			
European International						470034-911				Russia	470034-919
France						470034-912				Saudi Arabia	470034-903
Greece/Poland						470034-913				Switzerland	470034-961
Hungary						470034-915				Turkey	470034-922
Israel						470034-916				United Kingdom	470034-923
P2804	P	160	X4	20	V	C	25	O			
European International						470036-398					
P2812	P	160	X4	20	R	C	25	E			
Australia						470040-833					
P2815	P	160	X4	20	D	C	25	E			
Asia Pacific						470041-560				Korea	470036-648
P2812	P	160	X4	20	D	C	25	E			
Taiwan						470036-658					

Table 1-5
Compaq Presario 2800 Models (Continued)

P2810	P	150	P5	40	W	C	51	E	
Australia						470033-262			
P2809	P	150	P5	40	W	C	25	E	
India						470033-265			
P2815	P	150	P5	30	W	C	51	E	
Czech Republic						470033-225			
European International						470033-226			
France						470033-227			
Greece/Poland						470033-228			
Hungary						470033-229			
Israel						470033-232			
Portugal						470033-233			
Russia						470033-239			
Saudi Arabia						470033-222			
Slovenia						470033-240			
Spain						470033-241			
Switzerland						470033-242			
Turkey						470033-244			
United Kingdom						470033-245			
P2805	P	150	P5	30	W	C	25	E	
Hong Kong						470033-191			
Taiwan						470033-185			
P2803	P	150	P5	30	W	C	25	E	
Hong Kong						470033-199			
Taiwan						470033-183			
P2807	P	150	X5	30	W	C	25	E	
Asia Pacific						470033-170			
Korea						470033-173			
P2804	P	150	X5	30	V	C	25	E	
Hong Kong						470033-198			
Taiwan						470033-184			
P2806	P	150	X5	30	R	C	25	E	
Asia Pacific						470033-176			
Korea						470033-174			
P2801	P	150	X4	40	V	C	25	E	
People's Republic of China						470033-178			
P2802	P	150	X4	30	V	C	25	E	
Hong Kong						470033-200			
Taiwan						470033-182			

Table 1-5
Compaq Presario 2800 Models (Continued)

P2805	P	150	X4	30	R	C	25	E	
Australia					470033-267				
P2812	P	140	X5	30	W	C	25	E	
Sweden/Finland					470035-708				
P2810	P	140	X5	30	W	C	25	E	
Czech Republic					470033-192				
European International					470033-193				
France					470033-194				
Greece/Poland					470033-195				
Hungary					470033-196				
Israel					470033-207				
Portugal					470033-208				
Russia					470033-209				
Saudi Arabia					470033-189				
Slovenia					470033-210				
Spain					470033-211				
Switzerland					470033-212				
Turkey					470033-213				
United Kingdom					470033-214				
P2804	P	140	X5	30	V	C	25	E	
India					470033-269				
P2805	P	140	X5	20	W	C	25	E	
Czech Republic					470033-135				
European International					470033-136				
France					470033-137				
Greece/Poland					470033-138				
Hungary					470033-139				
Israel					470033-140				
Portugal					470033-141				
Russia					470033-143				
Saudi Arabia					470033-133				
Slovenia					470033-144				
Spain					470033-145				
Switzerland					470033-146				
Turkey					470033-147				
United Kingdom					470033-148				
P2805	P	140	X5	20	V	C	25	E	
Asia Pacific					470033-268				
Korea					470033-270				
P2812	P	140	X4	40	W	C	25	E	
Asia Pacific					470035-188				
P2811	P	140	X4	30	V	C	25	E	
Asia Pacific					470035-189				

Table 1-5
Compaq Presario 2800 Models (Continued)

P2801	P	140	X4	30	V	C	25	E			
Hong Kong						470033-205				Taiwan	470033-181
P2800	P	140	X4	30	V	C	25	E			
People's Republic of China						470033-177					
P2801	P	140	X4	30	V	C	12	E			
India						470033-259					
P2810	P	140	X4	20	W	C	25	E			
Latin America						47033-256				Latin America (NAFTA)	470034-524
P2802	P	140	X4	20	W	C	25	E			
Spain						470035-707					
P2800	P	140	X4	20	V	C	25	E			
Czech Republic						470033-111				Russia	470033-118
European International						470033-112				Saudi Arabia	470033-110
France						470033-113				Slovenia	470033-119
Greece/Poland						470033-114				Spain	470033-120
Hungary						470033-115				Switzerland	470033-121
Israel						470033-116				Turkey	470033-122
Portugal						470033-117				United Kingdom	470033-123
P2800	P	140	X4	20	D	C	25	E			
Asian Pacific						470033-258				Korea	470033-261
Hong Kong						470033-206				Taiwan	470033-180 and 470033-260
P2800	P	140	X4	20	R	C	25	E			
Australia						470033-168					

Table 1-5
Compaq Presario 2800 Models (Continued)

The following Compaq Presario 2800 models are available in North America and feature:

- TouchPad pointing device
- 8-cell, 4.0 Ah Li ion battery pack
- 32 MB discrete video memory
- 1-year warranty on parts and labor

P2811	P	160	X5	30	W	C	25	E		
Canada (English)						470037-115		French Canada		470037-114
P2810	P	150	P5	40	W	C	51	E		
French Canada						470033-095		United States		470033-096
P2800	P	140	X5	30	W	C	25	E		
French Canada						470033-090		United States		470033-091

1.2 Features

- 2.2-, 2.0-, 1.9-, 1.8-, 1.7-, 1.6-, 1.5-, or 1.4-GHz Intel Mobile Pentium 4 processor with SpeedStep technology, with 256-KB integrated L2 cache, varying by computer model
- ATI Mobile Radeon 9000 or ATI P7 graphics controller with 32 to 64 MB of shared SDRAM and 4X AGP graphics card, varying by computer model
- 128-MB high-performance Synchronous DRAM (SDRAM), expandable to 1.0 GB
- Microsoft Windows 2000, Windows XP Home, or Windows XP Professional, varying by computer model
- 15.0-inch UXGA (1600 × 1200), SXGA+ (1400 × 1050), or XGA (1024 × 768), or 14.1-inch XGA (1024 × 768), TFT display with over 16.7 million colors, varying by computer model
- Full-size Windows 98 keyboard with:
 - TouchPad pointing device (Presario 2800 and Evo Notebook N800c models)
 - TouchPad and point stick (Evo Notebook N800c models only)
- Network interface card (NIC) integrated on the system board, with a mini PCI V.92 modem
- Integrated wireless support of 802.11b and Bluetooth devices through MultiPort
- Support for one Type I or II PC Card slot with support for both 32-bit CardBus and 16-bit PC Cards
- External 65 W AC adapter with power cord
- 8-cell lithium ion (Li ion) battery pack
- 60-, 40-, 30-, or 20-GB high-capacity hard drive, varying by computer model

- Support for the following drives through the MultiBay:
 - ❑ 1.44-MB diskette drive
 - ❑ 24X Max CD-ROM drive
 - ❑ 8X Max CD-RW drive
 - ❑ 8X Max DVD-ROM drive
 - ❑ 8X Max DVD-CDRW combination drive
 - ❑ 40- or 30-GB hard drive
 - ❑ LS-120 drive
 - ❑ 8-cell battery pack
- JBL Pro stereo speakers with bass reflex
- Dolby Digital certified sound
- Connectors for:
 - ❑ RJ-45 network
 - ❑ RJ-11 modem
 - ❑ Universal Serial Bus
 - ❑ Parallel devices
 - ❑ External monitor
 - ❑ AC power
 - ❑ Stereo line out/headphone
 - ❑ Mono microphone
 - ❑ S-video
 - ❑ Port replicator
 - ❑ Infrared

1.3 Clearing a Password

If the notebook you are servicing has an unknown password, follow these steps to clear the password. These steps also clear CMOS:

1. Prepare the computer for disassembly (refer to Section 5.3, “Preparing the Computer for Disassembly,” for more information).
2. Remove the RTC battery (refer to Section 5.17, “Disk Cell RTC Battery”).
3. Wait approximately five minutes.
4. Replace the RTC battery and reassemble the computer.
5. Connect AC power to the computer. Do **not** reinsert any battery packs at this time.
6. Turn on the computer.

All passwords and all CMOS settings have been cleared.

1.4 Power Management

The computer comes with power management features that extend battery operating time and conserve power. The computer supports the following power management features:

- Suspend
- Hibernation
- Setting customization by the user
- Hotkeys for setting level of performance
- Smart battery that provides an accurate battery power gauge
- Battery calibration
- Lid switch Suspend/resume
- Power/Suspend button
- Advanced Configuration and Power Management (ACP) compliance

1.5 Computer External Components

The external components on the front and right side of the computer are shown in Figure 1-2 and described in Table 1-6.

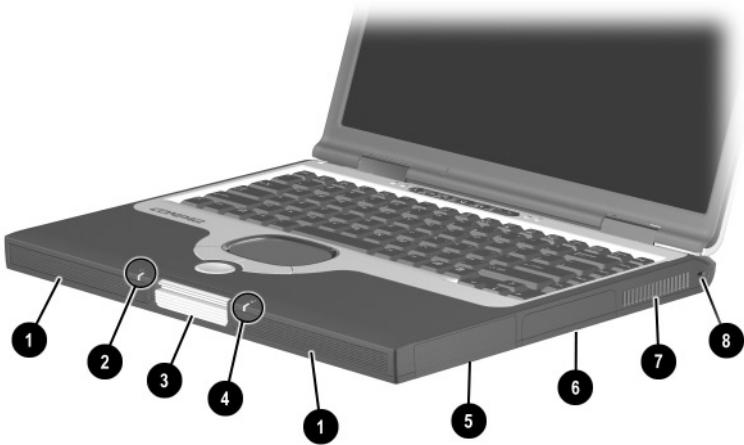



Figure 1-2. Front and Right Side Components

Table 1-6
Front and Right Side Components

Item	Component	Function
1	Stereo speakers (2)	Produce stereo sound.
2	Power/Suspend light	On: Power is turned on. Off: Power is turned off. Blinking: Computer is in Suspend mode.
3	Display release latch	Opens the computer.
4	Battery light	On: A battery pack is charging. Blinking: A battery pack that is the only available power source has reached a low-battery condition.
5	Battery bay	Accepts an 8-cell lithium ion (Li ion) battery pack.
6	Hard drive bay	Supports the removable primary hard drive. The hard drive is secured to the computer by one screw.
7	Vent	Allows airflow to cool internal components.
	 CAUTION: To prevent damage, the computer shuts down if an overheating condition occurs. Do not block the cooling vent. Avoid placing the computer on a blanket, rug, or other flexible surface that may cover the vent area.	
8	Security cable slot	Attaches an optional security cable to the computer.

The computer rear panel and left side components are shown in Figure 1-3 and described in Table 1-7.

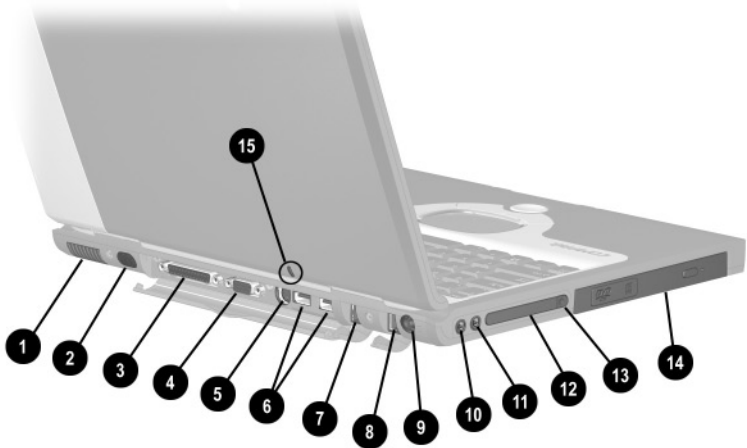


Figure 1-3. Rear Panel and Left Side Components

**Table 1-7
Rear Panel and Left Side Components**


Item	Component	Function
1	Vent	Allows airflow to cool internal components.
	 CAUTION: To prevent damage, the computer shuts down if an overheating condition occurs. Do not block the cooling vent. Avoid placing the computer on a blanket, rug, or other flexible surface that may cover the vent area.	
2	Infrared port	Provides wireless communication between the computer and another infrared-equipped device using an infrared beam.
3	Parallel connector	Connects a parallel device.

Table 1-7
Rear Panel and Left Side Components (Continued)

Item	Component	Function
4	External monitor connector	Connects an external monitor or overhead projector.
5	S-Video connector	Connects a television, VCR, camcorder, or overhead projector.
6	USB connectors (2)	Connect USB devices.
7	RJ-11 modem jack	Connects the modem cable to an internal modem. A modem cable is included with internal modem models.
8	RJ-45 network jack	Connects the network cable. A network cable is not included with the computer.
9	DC power jack	Connects any one of the following: <ul style="list-style-type: none">■ AC adapter■ Optional automobile power adapter/charger■ Optional aircraft power adapter
10	Mono microphone jack	Connects a mono microphone, disabling the built-in microphone.
11	Stereo speaker/headphone jack	Connects stereo speakers, headphones, headset, or television audio.
12	PC Card slot	Supports a 32-bit (CardBus) or 16-bit PC Card.
13	PC Card eject button	Ejects a PC Card from the PC Card slot.
14	MultiBay	Accepts MultiBay devices, such as a diskette drive, optical drive, hard drive, or optional battery pack.

The computer keyboard components are shown in Figure 1-4 and described in Table 1-8.

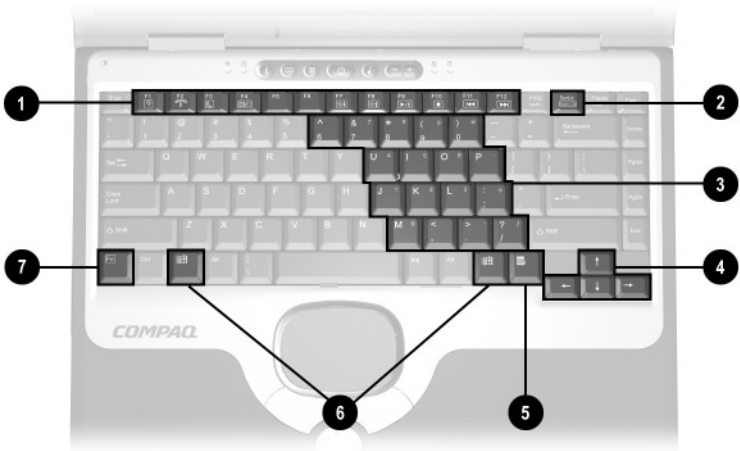


Figure 1-4. Keyboard Components

Table 1-8
Keyboard Components

Item	Component	Function
1	F1 through F12 function keys	Perform preset functions.
2	Num lock key	On: Num lock is on and the embedded numeric keypad is enabled.
3	Embedded numeric keypad	Converts keys to numeric keypad.
4	Cursor control keys	Move the cursor around the screen.
5	Windows application key	Displays a menu when using a Microsoft application. The menu is the same one that is displayed by pressing the right mouse button.
6	Windows logo keys	Displays the Windows Start menu.
7	Fn key	Used with hotkeys to perform preset hotkey functions.

The computer top components are shown in Figure 1-5 and described in Table 1-9.

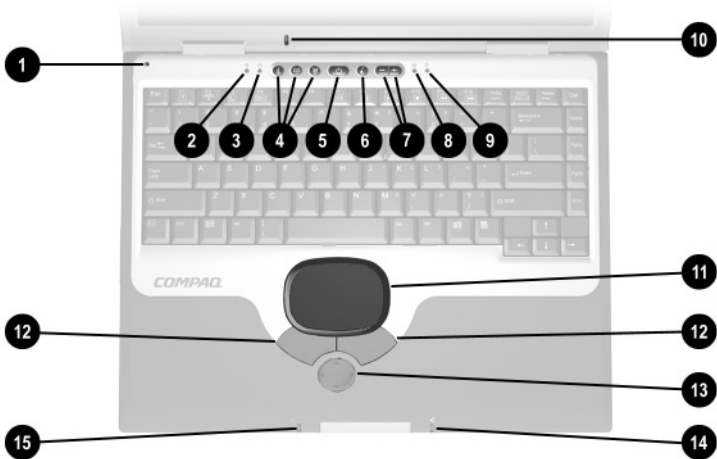


Figure 1-5. Top Components

**Table 1-9
Top Components**

Item	Component	Function
1	Display lid switch	Turns off the computer display if the computer is closed while on.
2	Power light	On: Power is turned on. Blinking: Computer is in Suspend mode. The power light also blinks if a battery pack that is the only available power source reaches a low-battery condition.
3	Num lock light	On: Num lock is on and the embedded numeric keypad is enabled.
4	Easy Access Buttons (3)	Provide quick access to the Internet. Refer to the <i>Hardware Guide</i> that ships with the computer for information about these buttons.

Table 1-9
Top Components (*Continued*)

Item	Component	Function
5	Power button	Turns on the computer. Use the operating system Shut Down command to turn off the computer.
6	Digital audio button	Launches Windows Media Player to play MP3 music.
7	Volume control buttons	Adjust the volume of the stereo speakers.
8	Caps lock light	On: Caps lock is on.
9	Drive indicator light	Turns on when the hard drive, CD-, or DVD-ROM drive is accessed.
10	Microphone	Allows for audio input.
11	TouchPad	Moves the mouse cursor, selects, and activates.
12	TouchPad buttons	Function like the left and right mouse buttons on an external mouse.
13	EasyScroll	Scrolls the screen left, right, up, and down.
14	Battery power light	On: A battery pack is charging. Blinking: A battery pack that is the only available power source has reached a low-battery condition.
15	Power/Suspend light	On: Power is turned on. Off: Power is turned off. Blinking: Computer is in Suspend mode.

The external components on the bottom of the computer are shown in Figure 1-6 and described in Table 1-10.

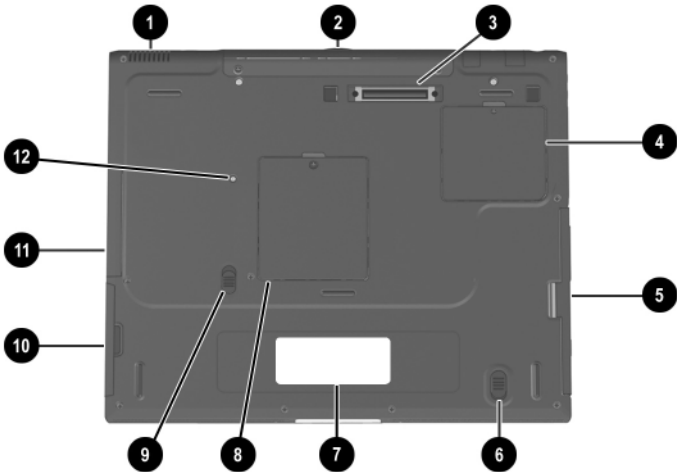


Figure 1-6. Bottom Components

**Table 1-10
Bottom Components**

Item	Component	Function
1	Vent	Allows airflow to cool internal components.
	<p>CAUTION: To prevent damage, the computer shuts down if an overheating condition occurs. Do not block the cooling vent. Avoid placing the computer on a blanket, rug, or other flexible surface that may cover the vent area.</p>	
2	Connector cover	Protects the parallel, external monitor, external keyboard/mouse, and USB connectors.
3	Docking connector	Connects the computer to an optional port replicator.

Table 1-10
Bottom Components (*Continued*)

Item	Component	Function
4	Mini PCI communications compartment	Contains the mini PCI modem card.
5	MultiBay	Accepts a diskette drive, optical drive, hard drive, or battery pack.
6	MultiBay release switch	Releases the MultiBay device from the connector.
7	Serial number	Identifies the computer; needed when you call Compaq customer support.
8	Memory expansion compartment	Covers the memory expansion compartment that contains two memory expansion slots for memory expansion boards.
9	Battery pack release switch	Releases the battery pack from the battery compartment.
10	Battery bay	Accepts an 8-cell lithium ion (Li ion) battery pack.
11	Hard drive bay	Supports the primary hard drive. The hard drive is secured to the computer by one screw.
12	Hard drive retention screw	Secures the hard drive to the computer.

1.6 Design Overview

This section presents a design overview of key parts and features of the computer. Refer to Chapter 3, “Illustrated Parts Catalog,” to identify replacement parts, and Chapter 5, “Removal and Replacement Procedures,” for disassembly steps. The system board provides the following device connections:

- Memory expansion board
- Hard drive
- Display
- Keyboard/TouchPad or pointing stick
- Audio
- Intel Mobile Pentium 4 processors with SpeedStep technology
- Fan
- PC Card
- Modem or modem/NIC

The computer uses an electrical fan for ventilation. The fan is controlled by a temperature sensor and is designed to turn on automatically when high temperature conditions exist. These conditions are affected by high external temperatures, system power consumption, power management/battery conservation configurations, battery fast charging, and software applications. Exhaust air is displaced through the ventilation grill located on the left side of the computer.



CAUTION: To properly ventilate the computer, allow at least a 3-inch (7.6 cm) clearance on the left and right sides of the computer.

Troubleshooting



WARNING: Only authorized technicians trained by Compaq should repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly/module level repair. Because of the complexity of the individual boards and subassemblies, no one should attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create a safety hazard. Any indication of component replacement or printed wiring board modification may void any warranty or exchange allowances.

2.1 Computer Setup and Diagnostics Utilities

Selecting Computer Setup or Compaq Diagnostics

The computer features two Compaq system management utilities:

- **Computer Setup**—A system information and customization utility that can be used even when your operating system is not working or will not load. This utility includes settings that are not available in Windows.

- **Compaq Diagnostics**—A system information and diagnostic utility that is used within your Windows operating system. Use this utility whenever possible to:

- Display system information.
- Test system components.
- Troubleshoot a device configuration problem in Windows 2000, Windows XP Professional, or Windows XP Home.



It is not necessary to configure a device connected to a USB connector on the computer or an optional docking base.

Using Computer Setup

Information and settings in Computer Setup are accessed from the File, Security, or Advanced menus:

1. Turn on or restart the computer. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower-left corner of the screen.
 - To change the language, press **F2**.
 - To view navigation information, press **F1**.
 - To return to the Computer Setup menu, press **esc**.
2. Select the File, Security, or Advanced menu.
3. To close Computer Setup and restart the computer:
 - Select File > Save Changes and Exit and press **enter**.
 - or
 - Select File > Ignore Changes and Exit and press **enter**.
4. When you are prompted to confirm your action, press **F10**.




Selecting from the File Menu

Table 2-1
File Menu

Select	To Do This
System Information	<ul style="list-style-type: none"> ■ View identification information about the computer, a docking base, and any battery packs in the system. ■ View specification information about the processor, memory and cache size, and system ROM.
Save to Floppy	Save system configuration settings to a diskette.
Restore from Floppy	Restore system configuration settings from a diskette.
Restore Defaults	Replace configuration settings in Computer Setup with factory default settings. (Identification information is retained.)
Ignore Changes and Exit	Cancel changes entered during the current session, then exit and restart the computer.
Save Changes and Exit	Save changes entered during the current session, then exit and restart the computer.

Selecting from the Security Menu

Table 2-2
Security Menu

Select	To Do This
Setup Password	Enter, change, or delete a setup password. (The setup password is called an administrator password in Compaq Computer Security, a program accessed from the Windows Control Panel.)
Power-on Password	Enter, change, or delete a power-on password.
DriveLock Passwords	Enable/disable DriveLock; change a DriveLock User or Master password.  DriveLock Settings are accessible only when you enter Computer Setup by turning on (not restarting) the computer.
Password Options Password options can be selected only when a power-on password has been set.	Enable/Disable: <ul style="list-style-type: none">■ QuickLock■ QuickLock on Suspend■ QuickBlank  To enable QuickLock on Suspend or QuickBlank, you must first enable QuickLock.
Device Security	Enable/Disable: <ul style="list-style-type: none">■ Ports or diskette drives*■ Diskette write*■ CD-ROM or diskette startup  Settings for a DVD-ROM can be entered in the CD-ROM field.
System IDs	Enter identification numbers for the computer, a docking base, and all battery packs in the system.

*Not applicable to SuperDisk LS-120 drives.

Selecting from the Advanced Menu

Table 2-3
Advanced Menu

Select	To Do This
Language (or press F2)	Change the Computer Setup language.
Boot Options	<p>Enable/Disable:</p> <ul style="list-style-type: none"> ■ QuickBoot, which starts the computer more quickly by eliminating some startup tests. (If you suspect a memory failure and want to test memory automatically during startup, disable QuickBoot.) ■ MultiBoot, which sets a startup sequence that can include most bootable devices and media in the system.
Device Options	<ul style="list-style-type: none"> ■ Enable/disable the embedded numeric keypad at startup. ■ Enable/disable multiple standard pointing devices at startup. (To set the computer to support only a single, usually nonstandard, pointing device at startup, select Disable.) ■ Enable/disable USB legacy support for a USB keyboard. (When USB legacy support is enabled, the keyboard works even when a Windows operating system is not loaded.) ■ Set an optional external monitor or overhead projector connected to a video card in a docking base as the primary device. (When the computer display is set as secondary, the computer must be shut down before undocking from a docking base.)

Table 2-3
Advanced Menu (*Continued*)

Select	To Do This
Device Options (<i>continued</i>)	<ul style="list-style-type: none"> ■ Change the parallel port mode from EPP (Enhanced Parallel Port [default]) to standard, bidirectional, EPP or ECP (Enhanced Capabilities Port). ■ Set video-out mode to NTSC (default), PAL, NTSC-J, or PAL-M.* ■ Enable/disable all settings in the SpeedStep window. (When Disable is selected, the computer runs in Battery Optimized mode.) ■ Specify how the computer recognizes multiple identical docking bases that are identically equipped. (Select Disable to recognize the docking bases as a single docking base; select Enable to recognize the docking bases individually, by serial number.) ■ Enable/disable the reporting of the processor serial number by the processor to the software.
HDD Self Test Options	Run a quick comprehensive self test on hard drives in the system that support the test features.

*Video modes vary even within regions. However, NTSC is common in North America; PAL, in Europe, Africa, and the Middle East; NTSC-J, in Japan; and PAL-M, in Brazil. Other South and Central American regions may use NTSC, PAL, or PAL-M.

2.2 Using Compaq Diagnostics

When you access Compaq Diagnostics, a scan of all system components is displayed on the screen before the Compaq Diagnostics window opens.

You can display more or less information from anywhere within Compaq Diagnostics by selecting Level on the menu bar.

Compaq Diagnostics is designed to test Compaq components. If non-Compaq components are tested, the results may be inconclusive.

Obtaining, Saving, or Printing Configuration Information

1. Access Compaq Diagnostics by selecting Start > Settings > Control Panel > Compaq Diagnostics.
2. Select Categories, then select a category from the drop-down list.
 - To save the information, select File > Save As.
 - To print the information, select File > Print.
3. To close Compaq Diagnostics, select File > Exit.

Obtaining, Saving, or Printing Diagnostic Test Information

1. Access Compaq Diagnostics by selecting Start > Settings > Control Panel > Compaq Diagnostics.
2. Select the Test tab.
3. In the scroll box, select the category or device you want to test.
4. Select a test type:
 - Quick Test**—Runs a quick, general test on each device in a selected category.
 - Complete Test**—Performs maximum testing on each device in a selected category.
 - Custom Test**—Performs maximum testing on a selected device.
 - ◆ To run all tests for your selected device, select the Check All button.
 - ◆ To run only the tests you select, select the Uncheck All button, then select the checkbox for each test you want to run.

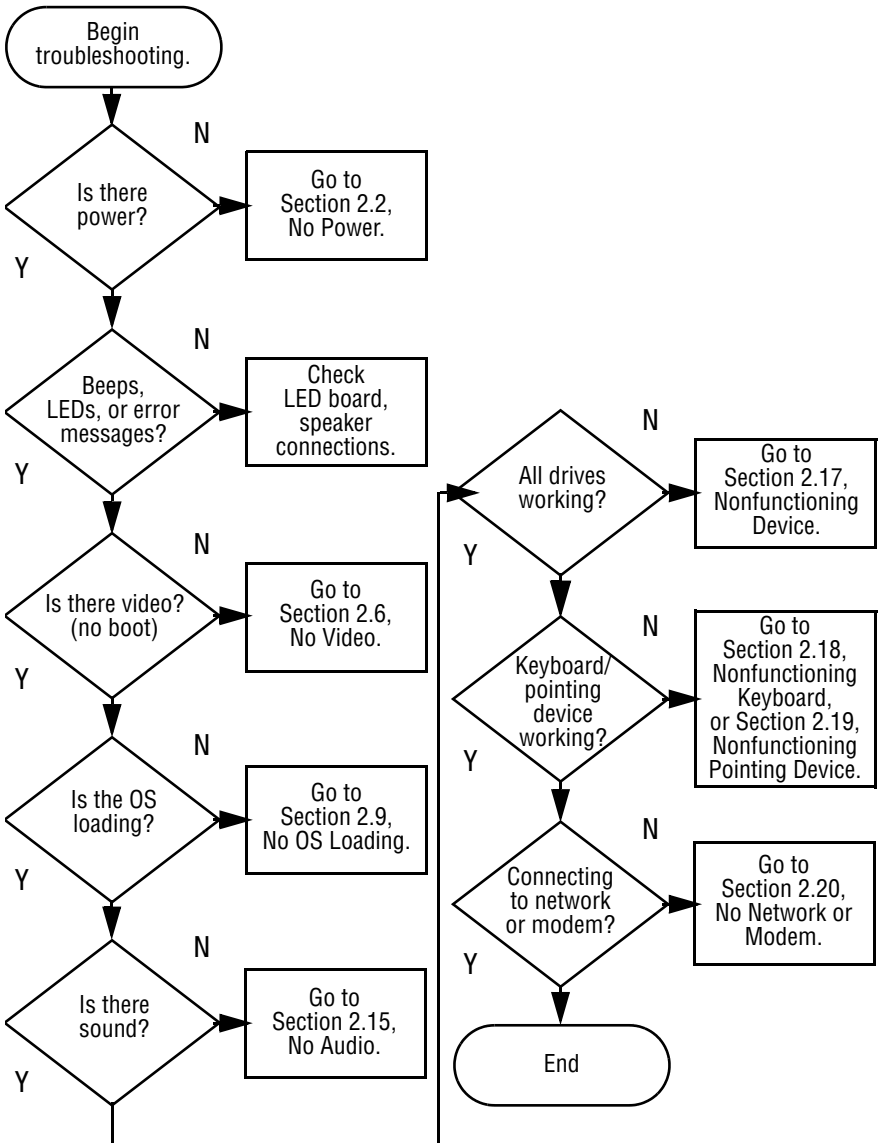
5. Select a test mode:
 - Interactive Mode**—Provides maximum control over the testing process. You determine whether the test was passed or failed and may be prompted to insert or remove devices.
 - Unattended Mode**—Does not display prompts. If errors are found, they are displayed when testing is complete.
6. Select the Begin Testing button.
7. Select a tab to view a test report:
 - Status tab**—Summarizes the tests run, passed, and failed during the current testing session.
 - Log tab**—Lists tests run on the system, the number of times each test has run, the number of errors found on each test, and the total run time of each test.
 - Error tab**—Lists all errors found in the computer with their error codes.
8. Select a tab to save the report:
 - Log tab**—Select the Log tab Save button.
 - Error tab**—Select the Error tab Save button.
9. Select a tab to print the report:
 - Log tab**—Select File > Save As, then print the file from your folder.

2.3 Troubleshooting Flowcharts

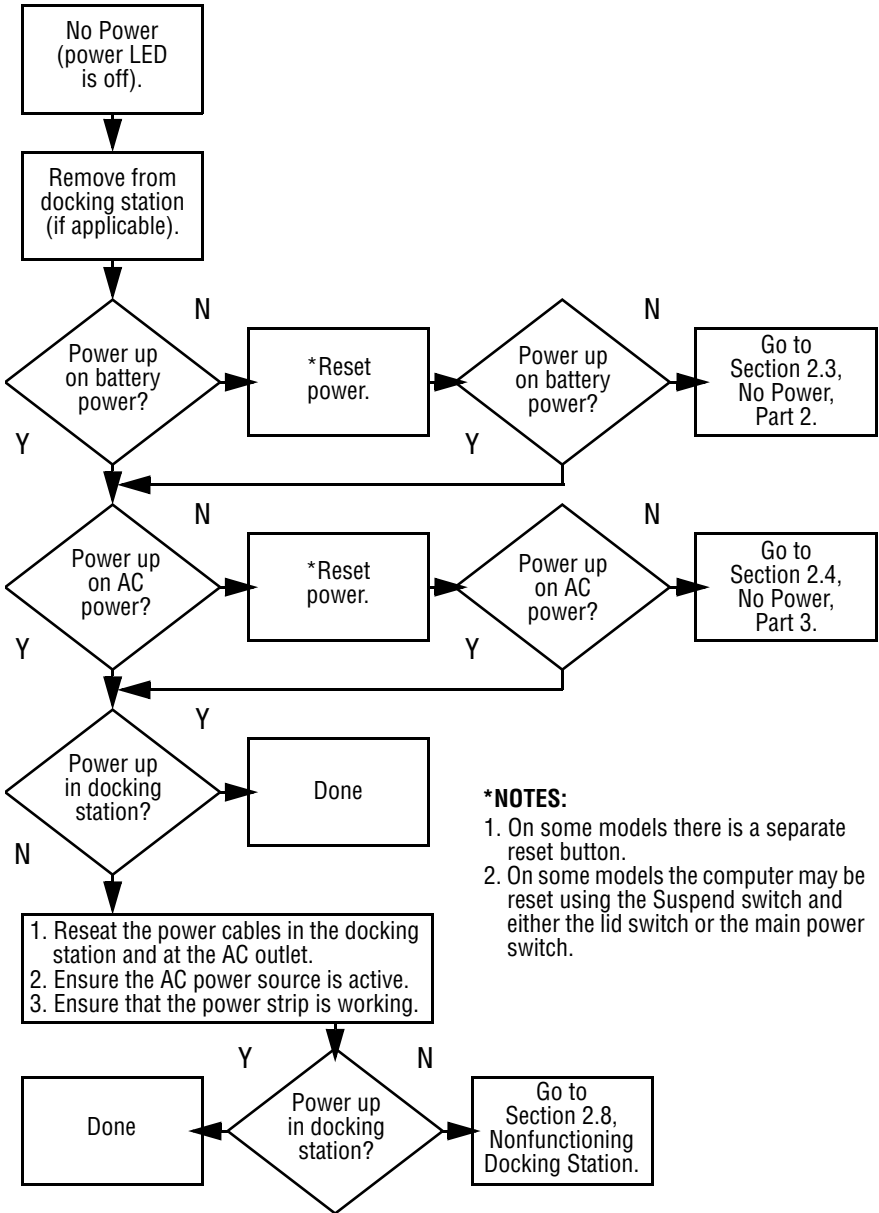
Table 2-4
Troubleshooting Flowcharts Overview

Flowchart	Description
2.1	Initial troubleshooting
2.2	No power, part 1
2.3	No power, part 2
2.4	No power, part 3
2.5	No power, part 4
2.6	No video, part 1
2.7	No video, part 2
2.8	Nonfunctioning docking station
2.9	No operating system (OS) loading
2.10	No OS loading from hard drive, part 1
2.11	No OS loading from hard drive, part 2
2.12	No OS loading from hard drive, part 3
2.13	No OS loading from diskette drive
2.14	No OS loading from CD- or DVD-ROM drive
2.15	No audio, part 1
2.16	No audio, part 2
2.17	Nonfunctioning device
2.18	Nonfunctioning keyboard
2.19	Nonfunctioning pointing device
2.20	No network or modem connection

Flowchart 2.1—Initial Troubleshooting



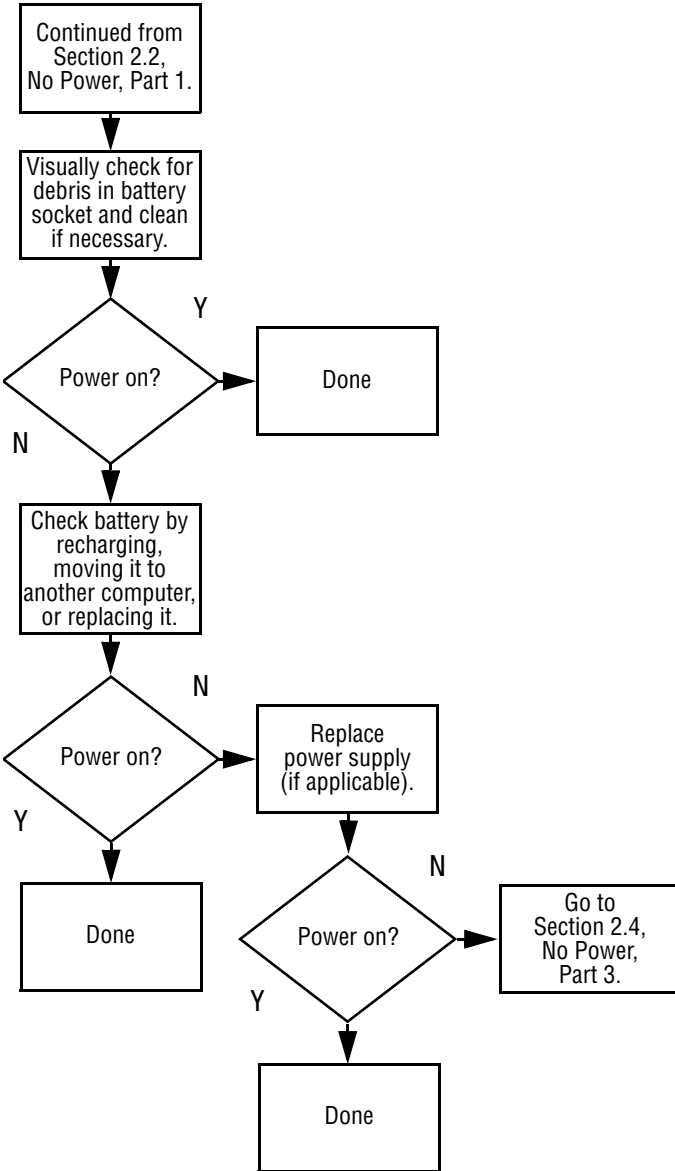
Flowchart 2.2—No Power, Part 1



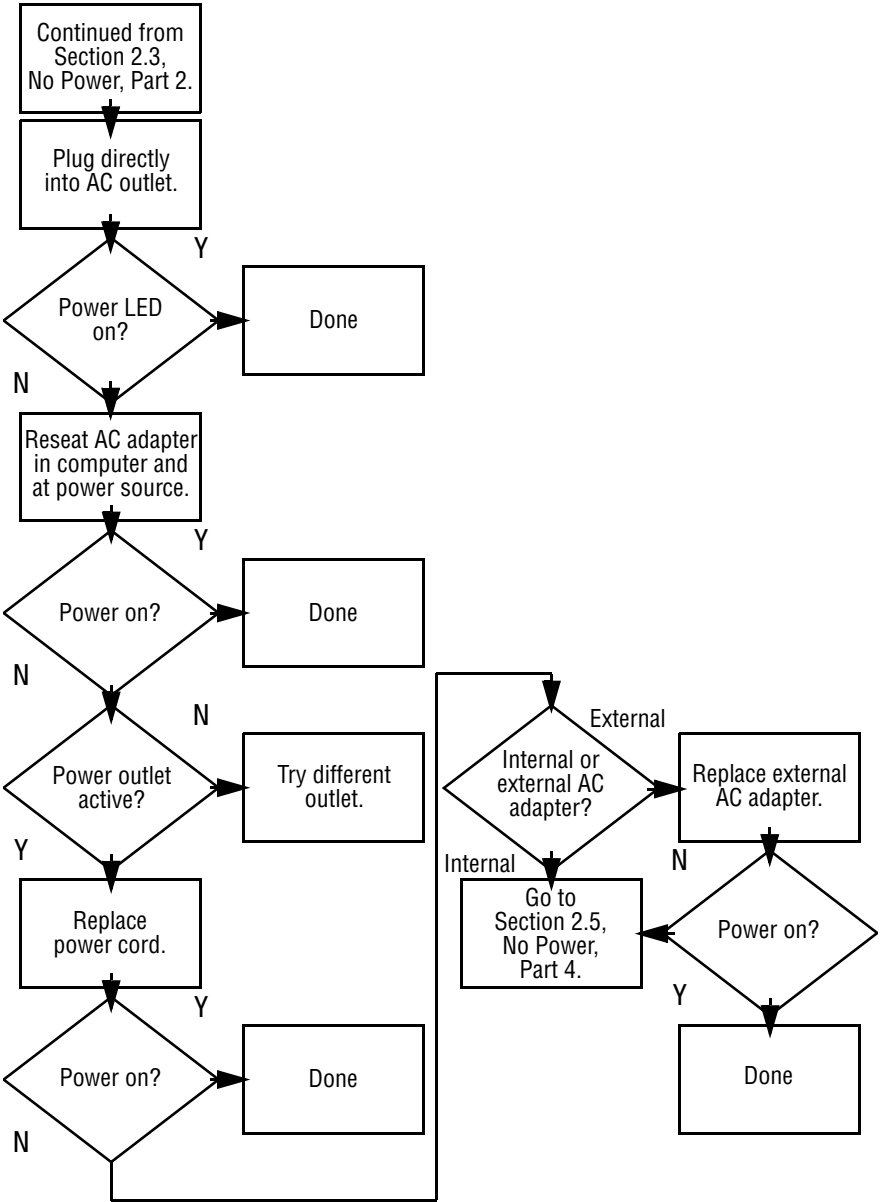
***NOTES:**

- 1. On some models there is a separate reset button.
- 2. On some models the computer may be reset using the Suspend switch and either the lid switch or the main power switch.

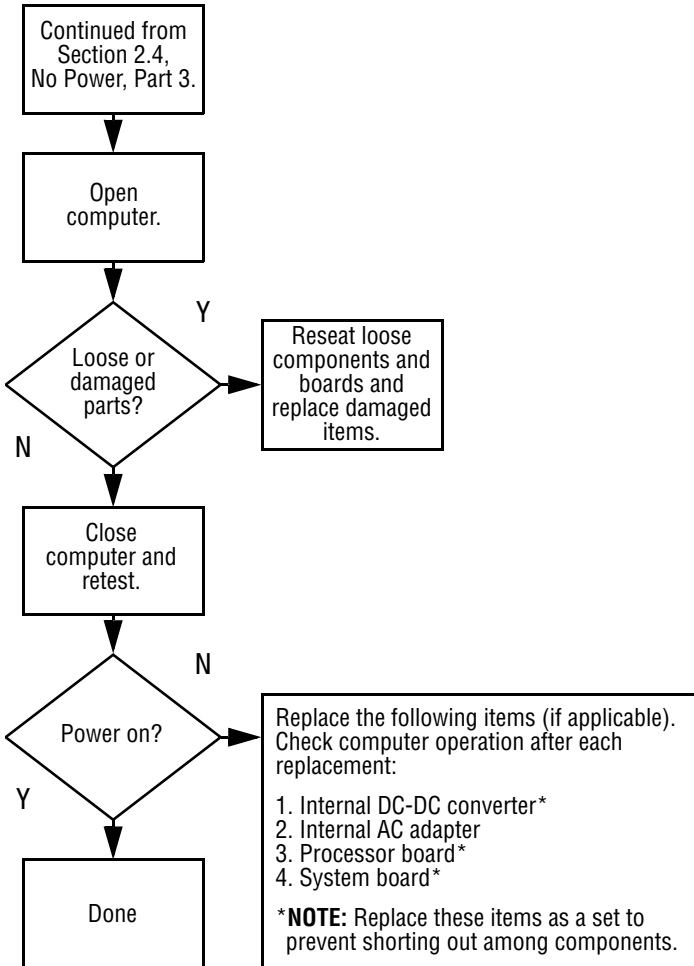
Flowchart 2.3—No Power, Part 2



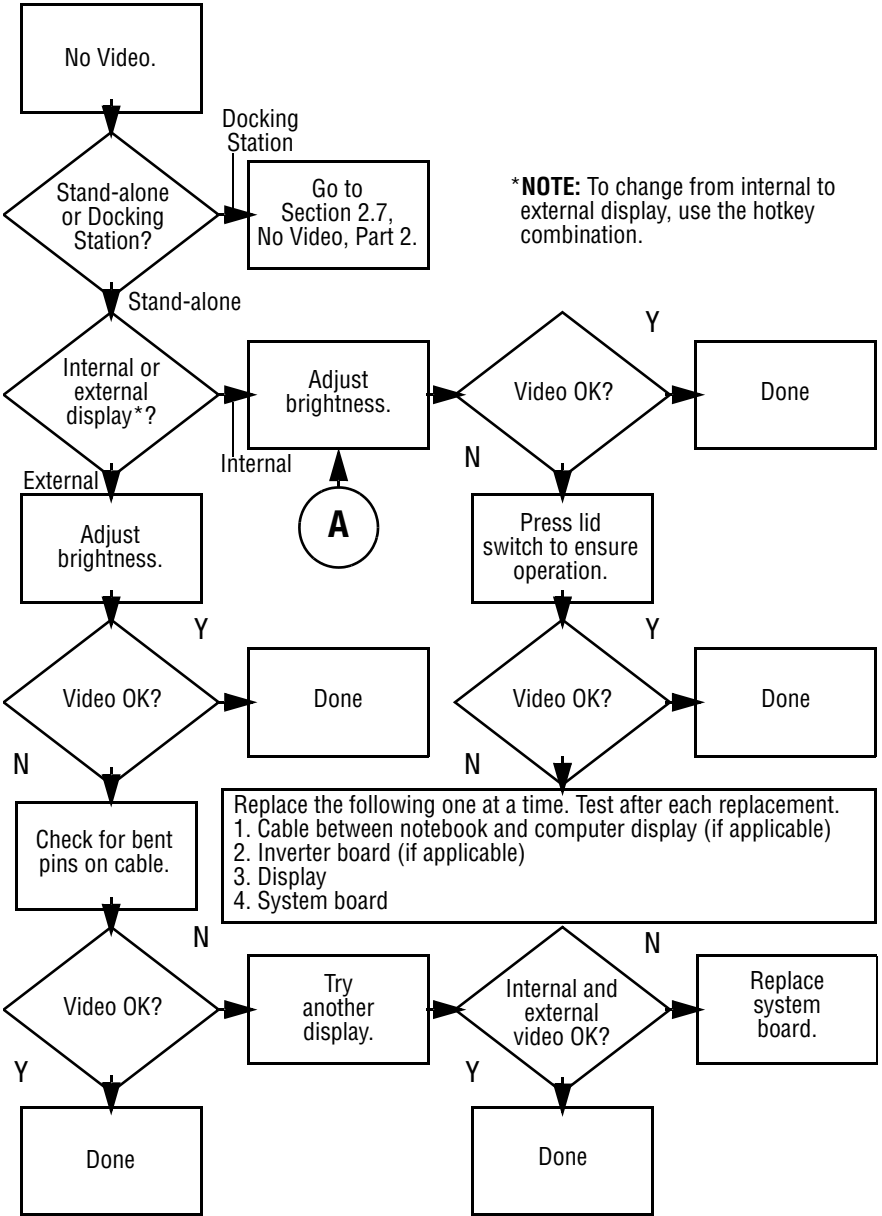
Flowchart 2.4—No Power, Part 3



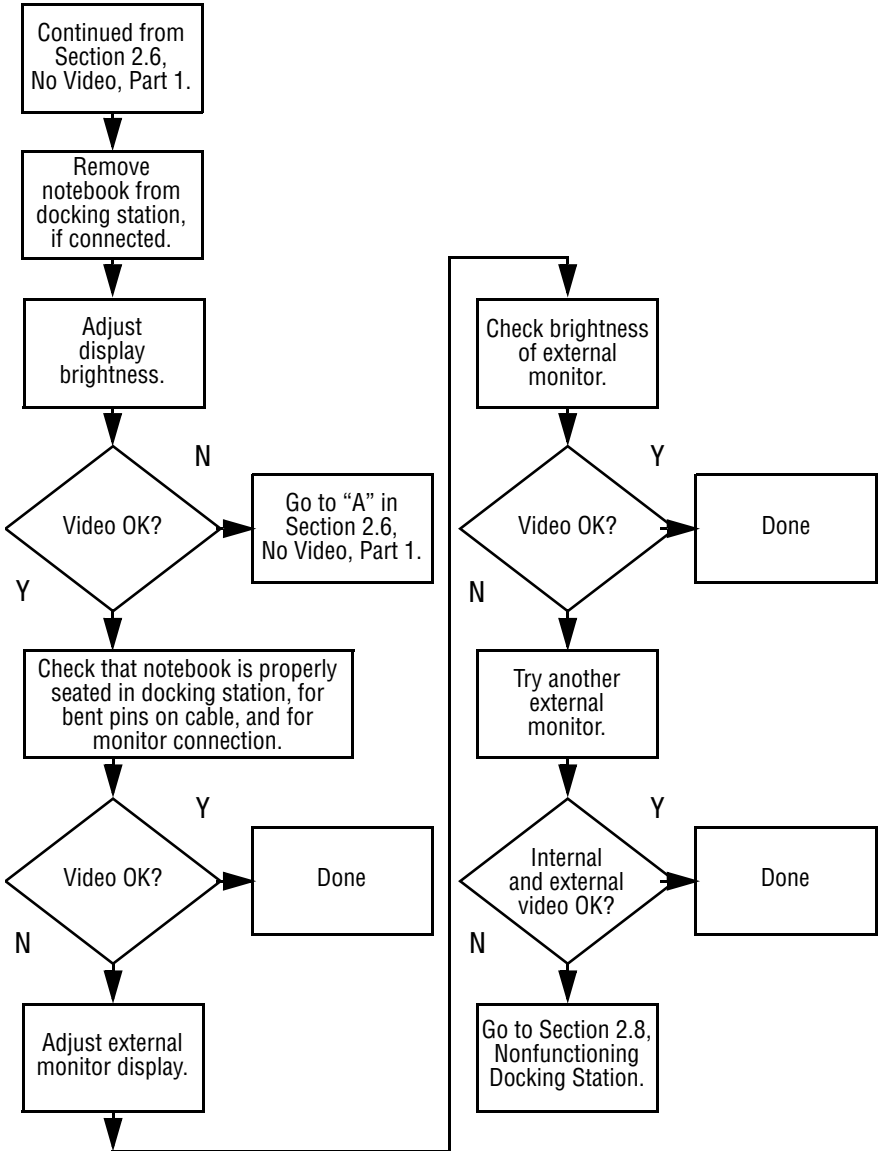
Flowchart 2.5—No Power, Part 4



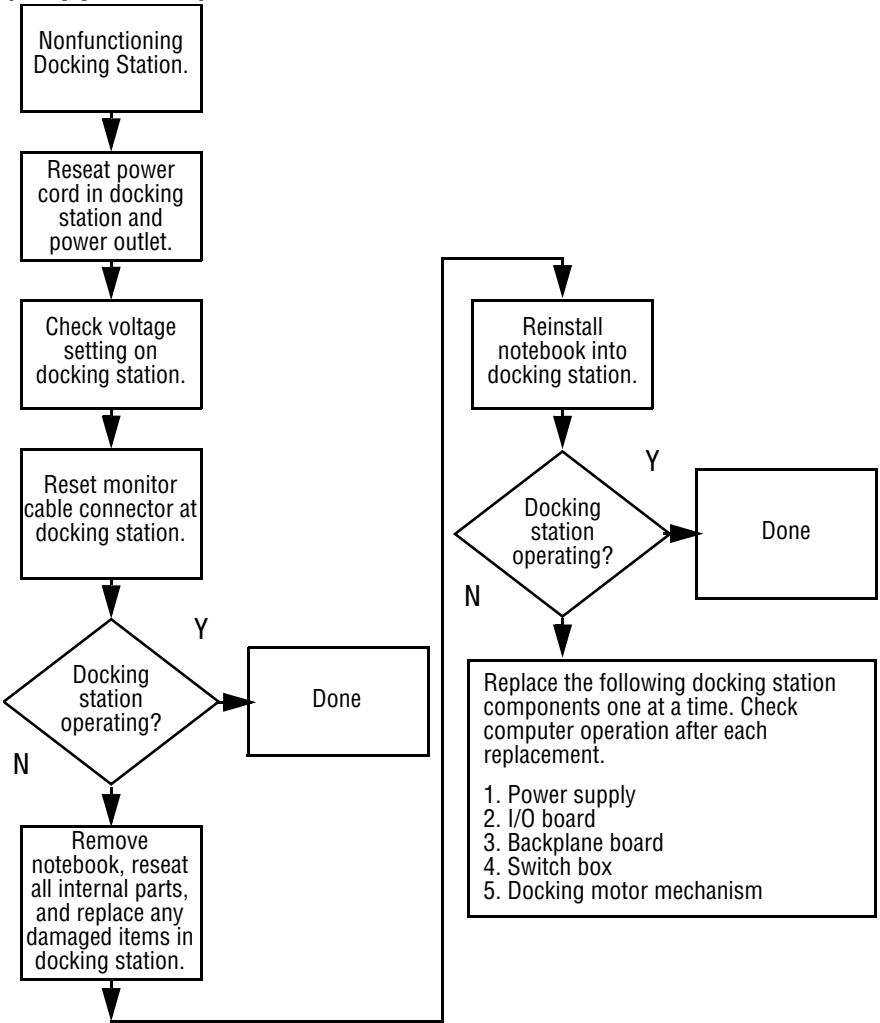
Flowchart 2.6—No Video, Part 1



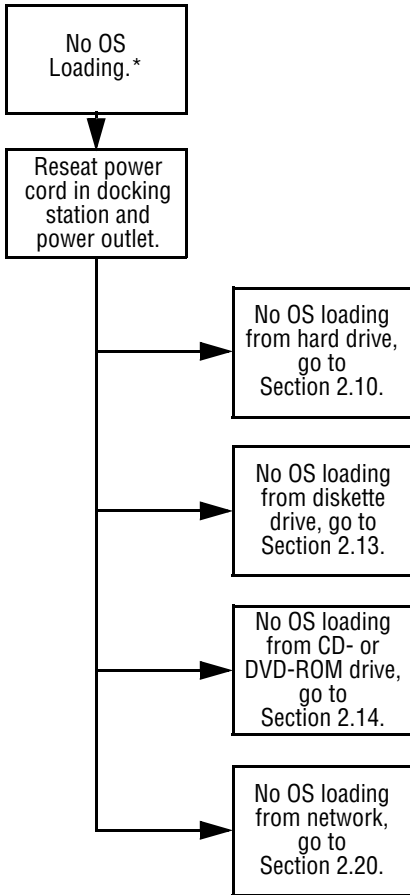
Flowchart 2.7—No Video, Part 2



**Flowchart 2.8—Nonfunctioning Docking Station
(if applicable)**

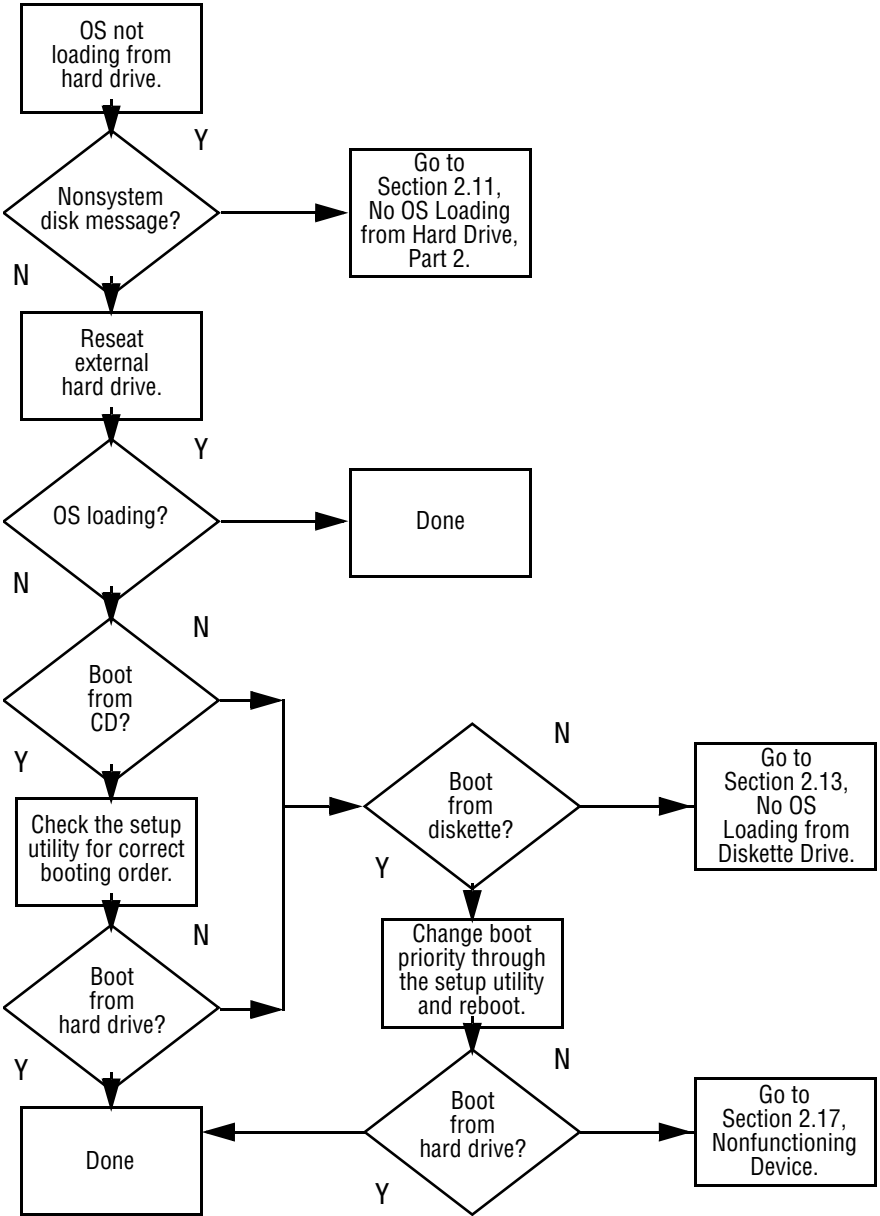


Flowchart 2.9—No Operating System (OS) Loading

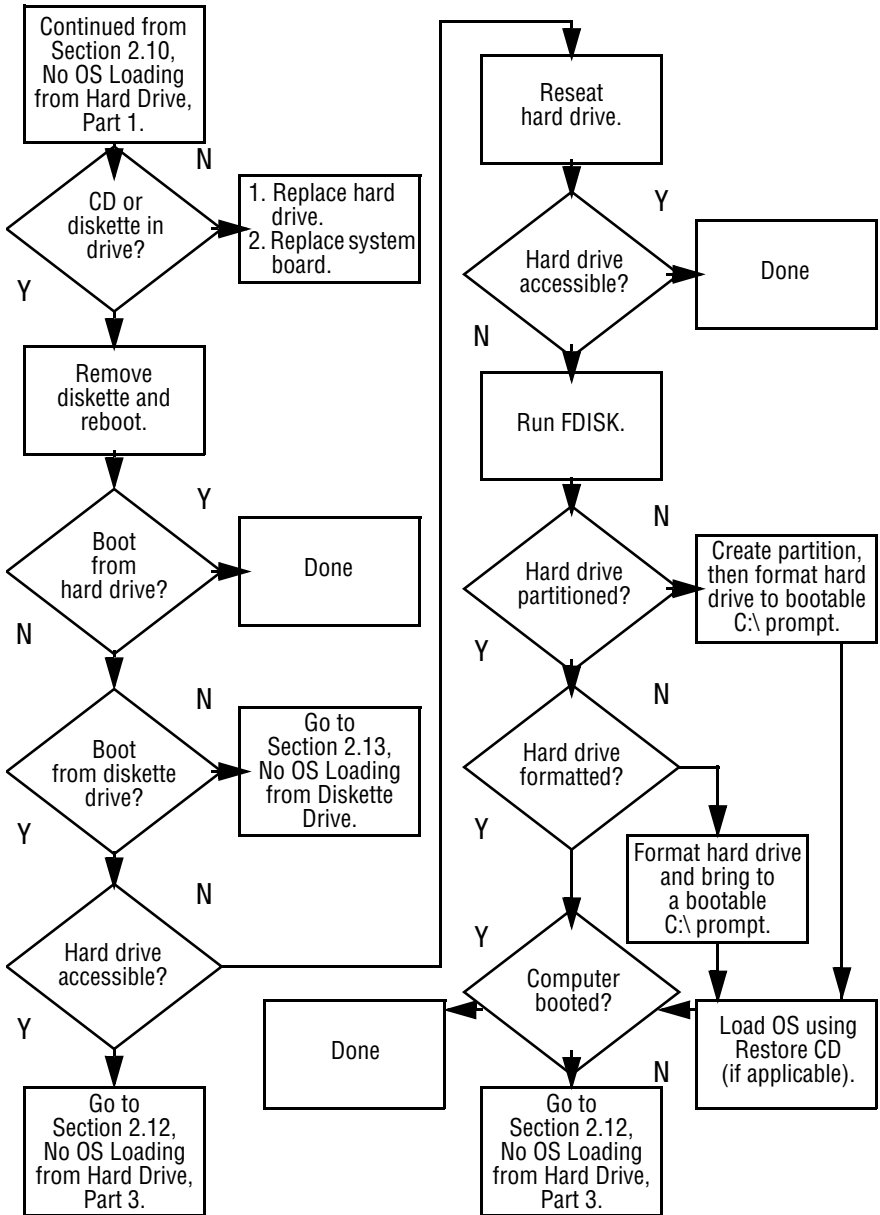


***NOTE:** Before beginning troubleshooting, always check cable connections, cable ends, and drives for bent or damaged pins.

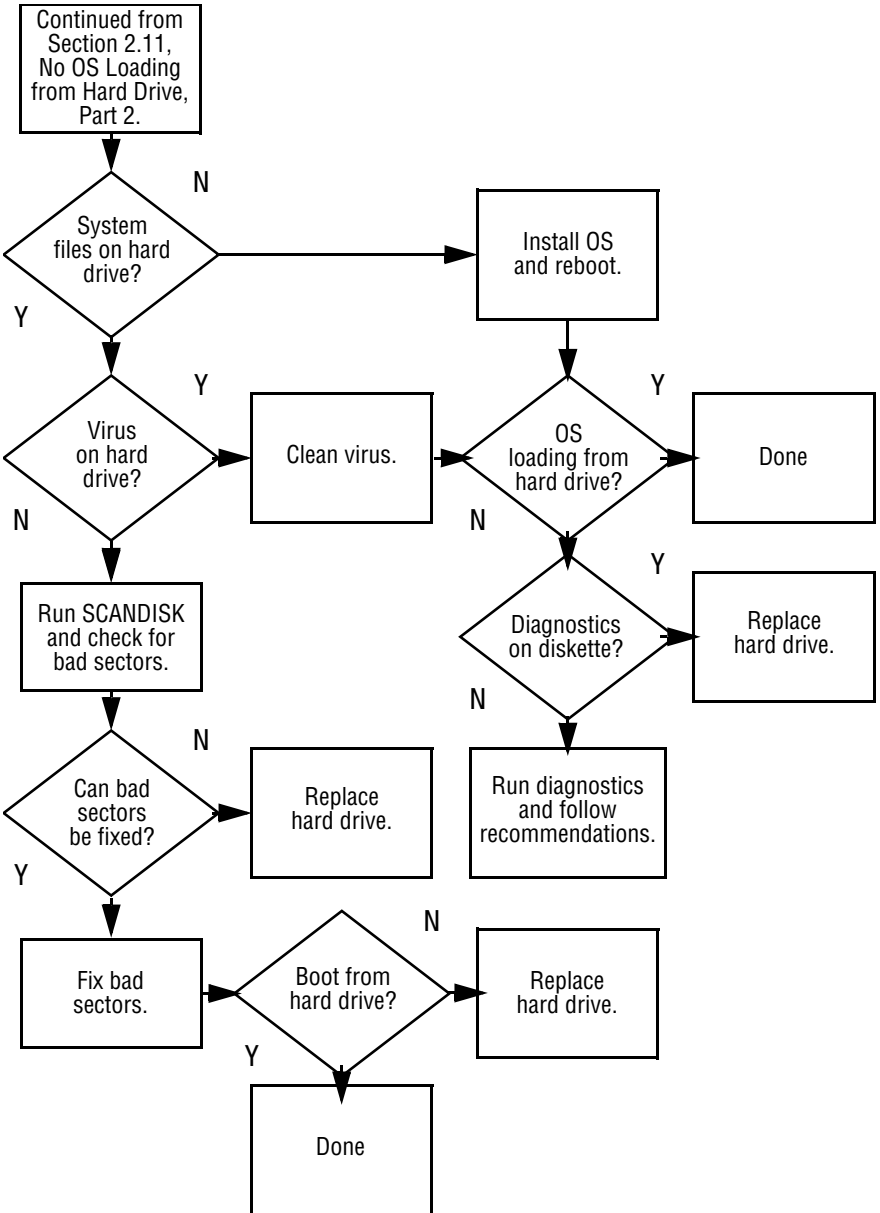
Flowchart 2.10—No OS Loading from Hard Drive, Part 1



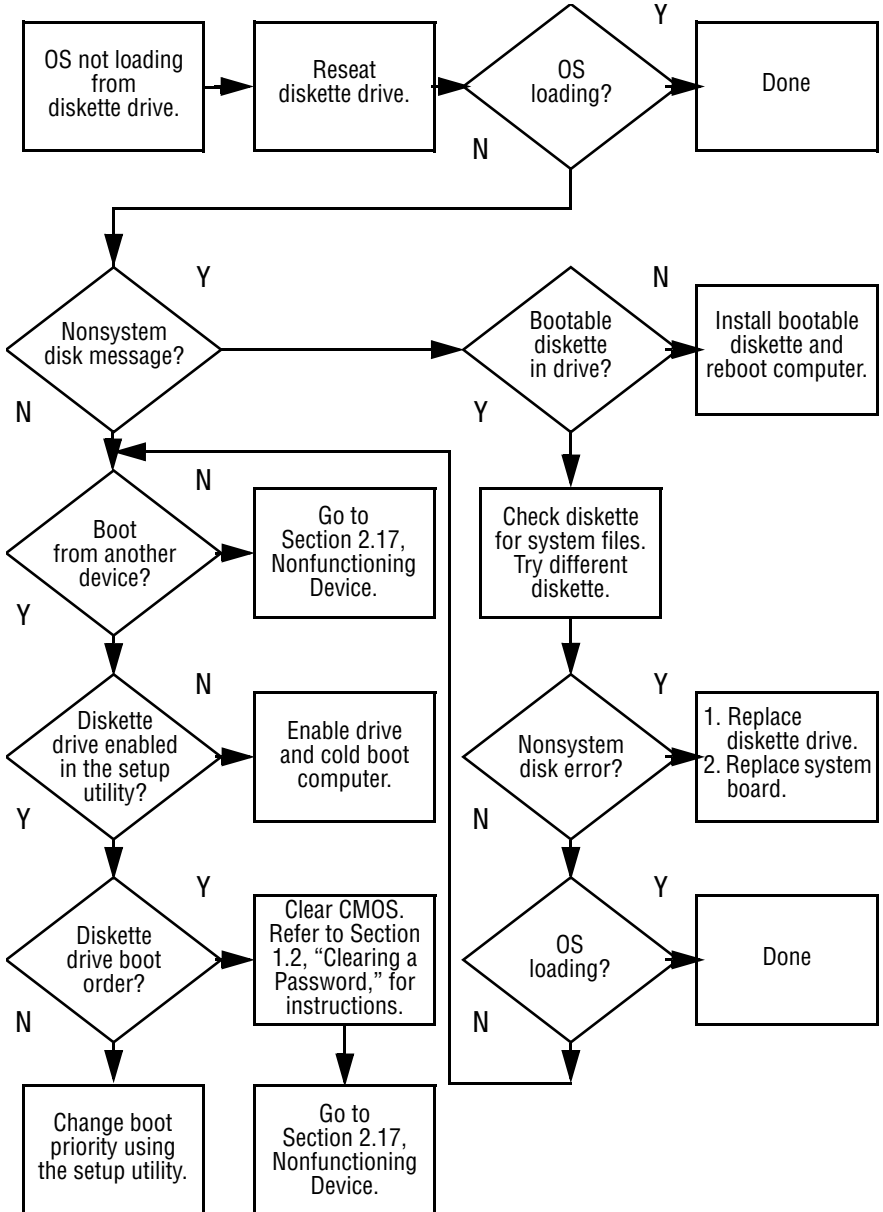
Flowchart 2.11—No OS Loading from Hard Drive, Part 2



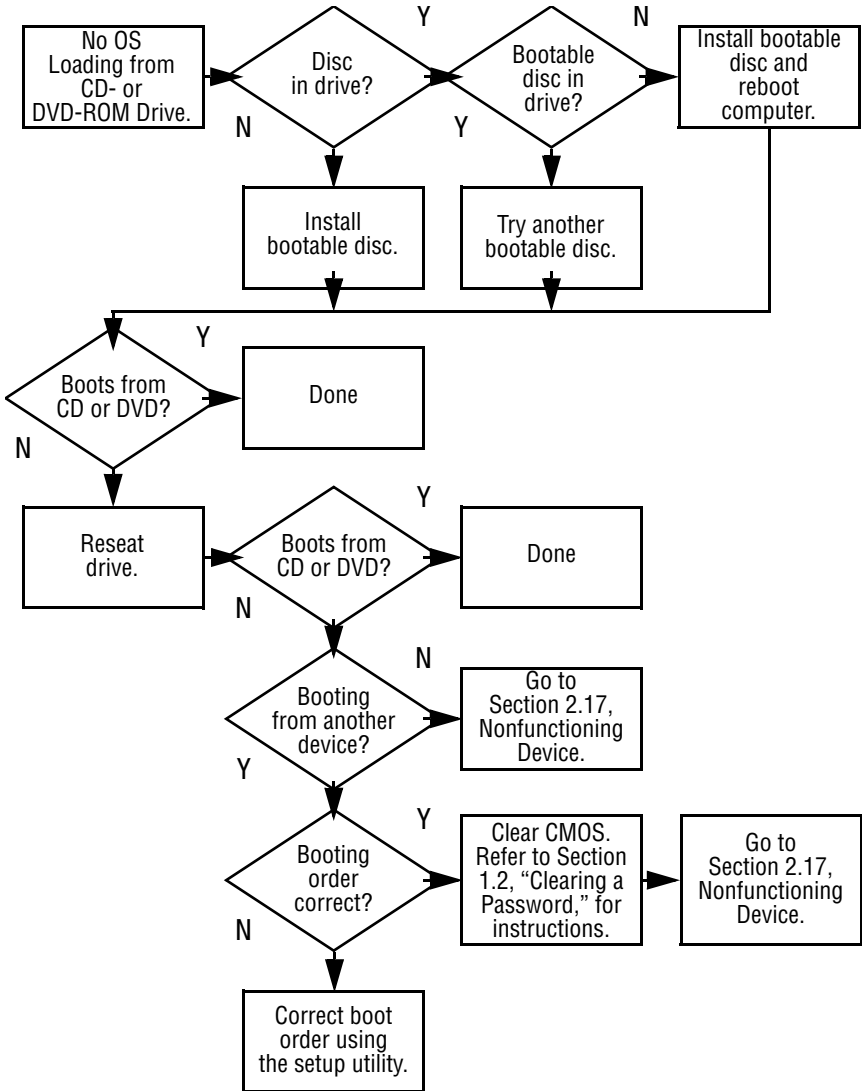
Flowchart 2.12—No OS Loading from Hard Drive, Part 3



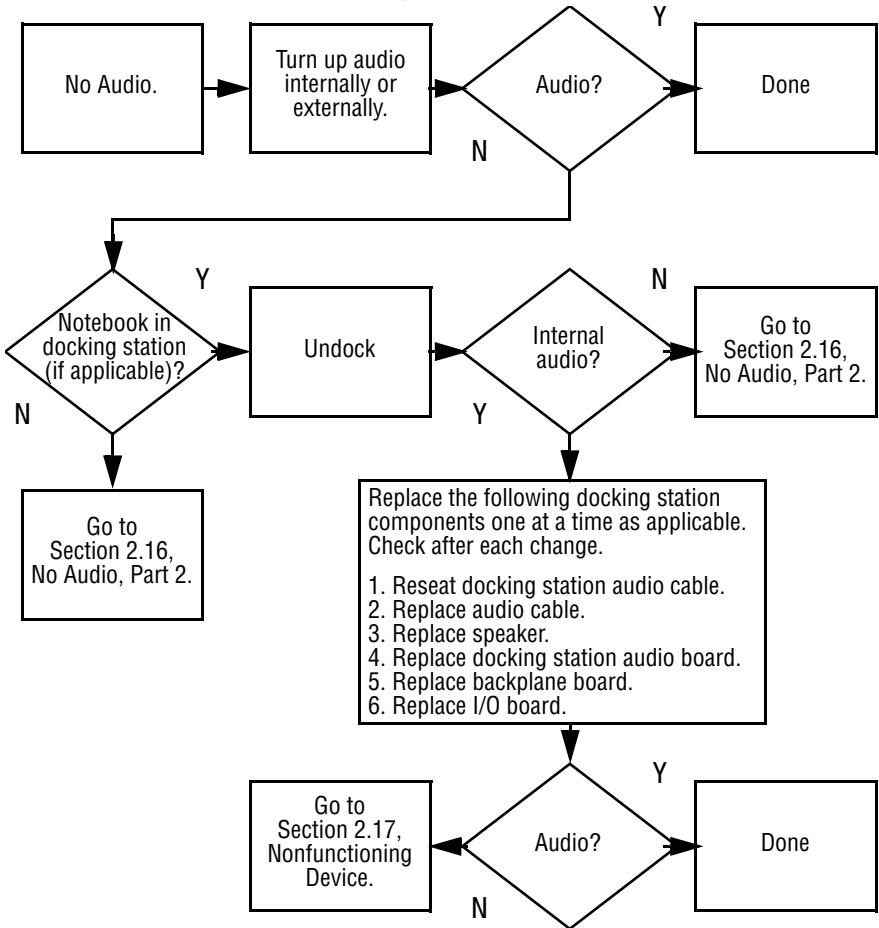
Flowchart 2.13—No OS Loading from Diskette Drive



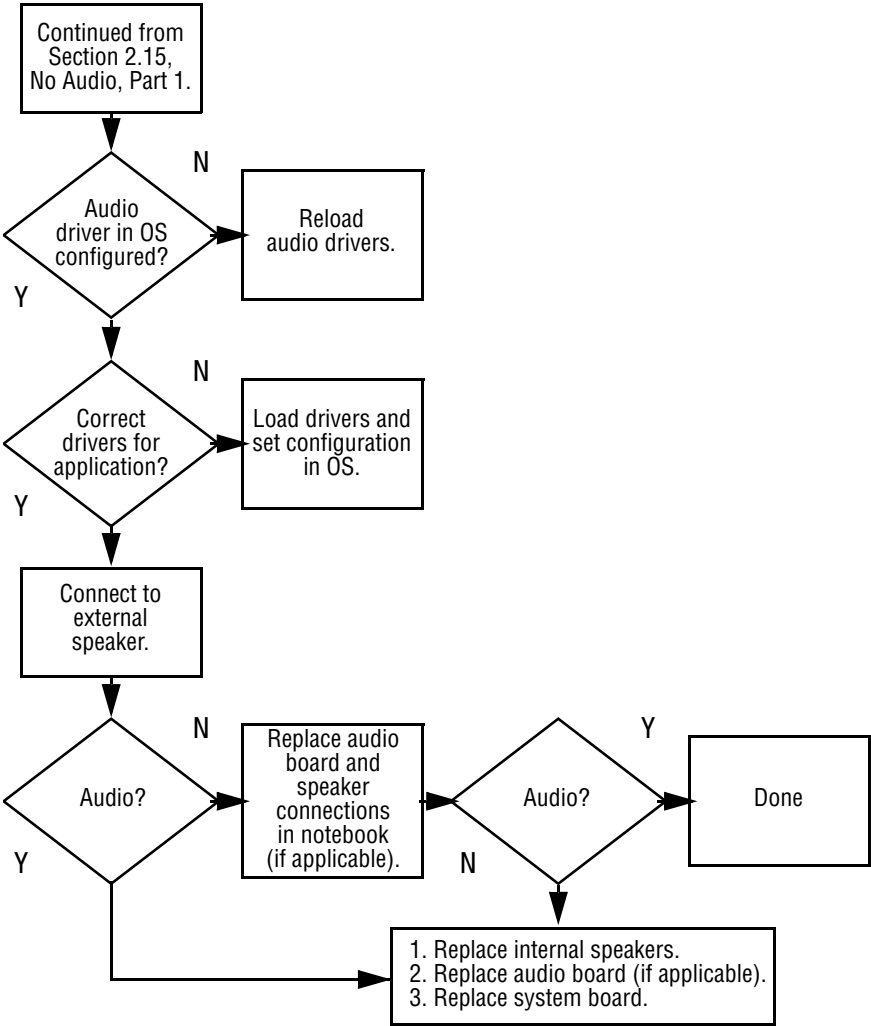
Flowchart 2.14—No OS Loading from CD- or DVD-ROM Drive



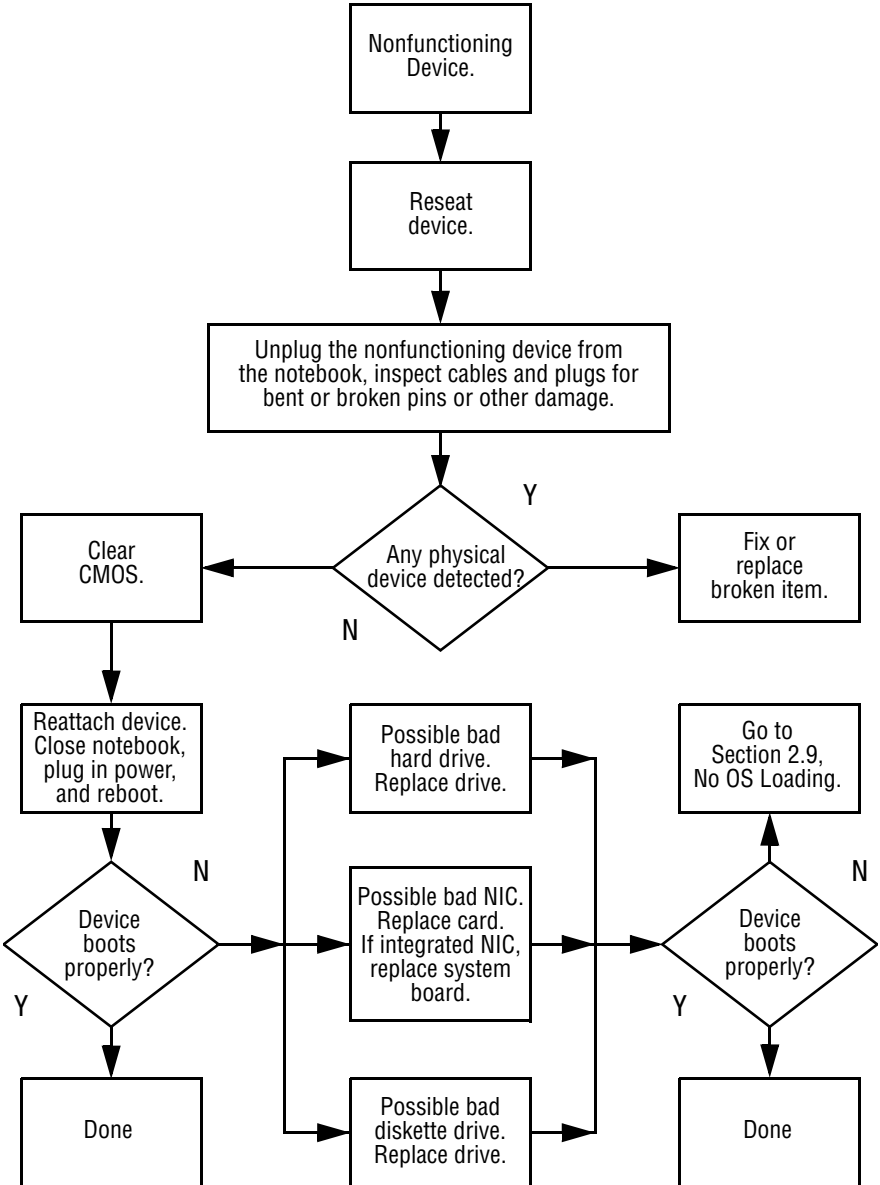
Flowchart 2.15—No Audio, Part 1



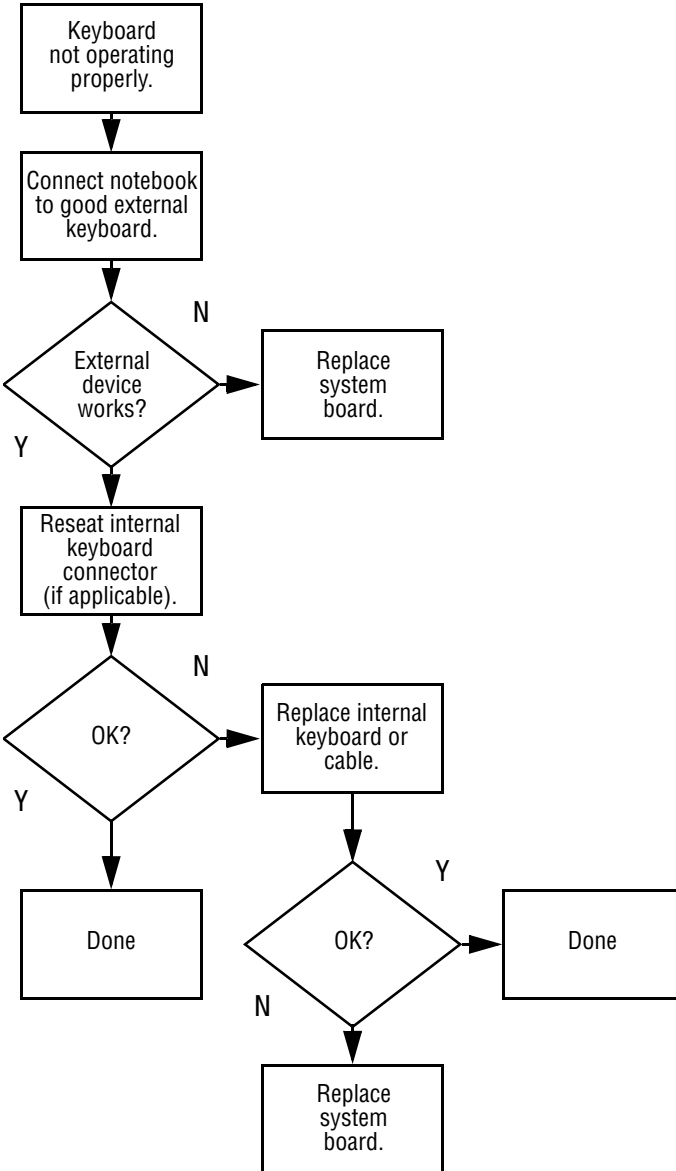
Flowchart 2.16—No Audio, Part 2



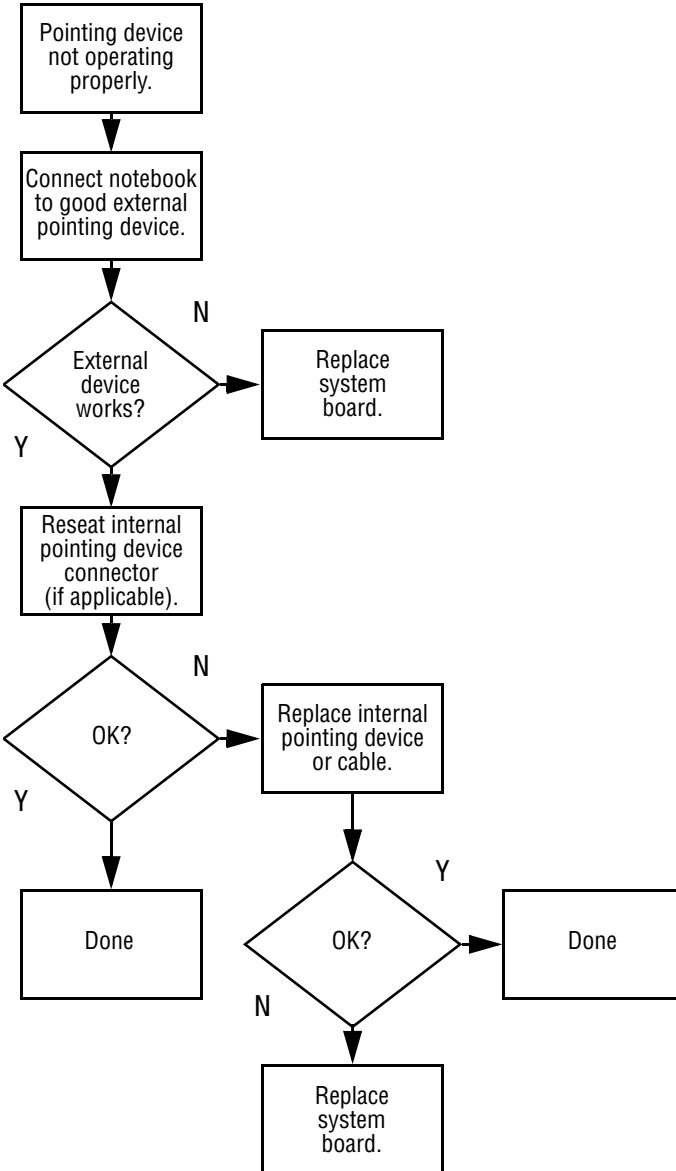
Flowchart 2.17—Nonfunctioning Device



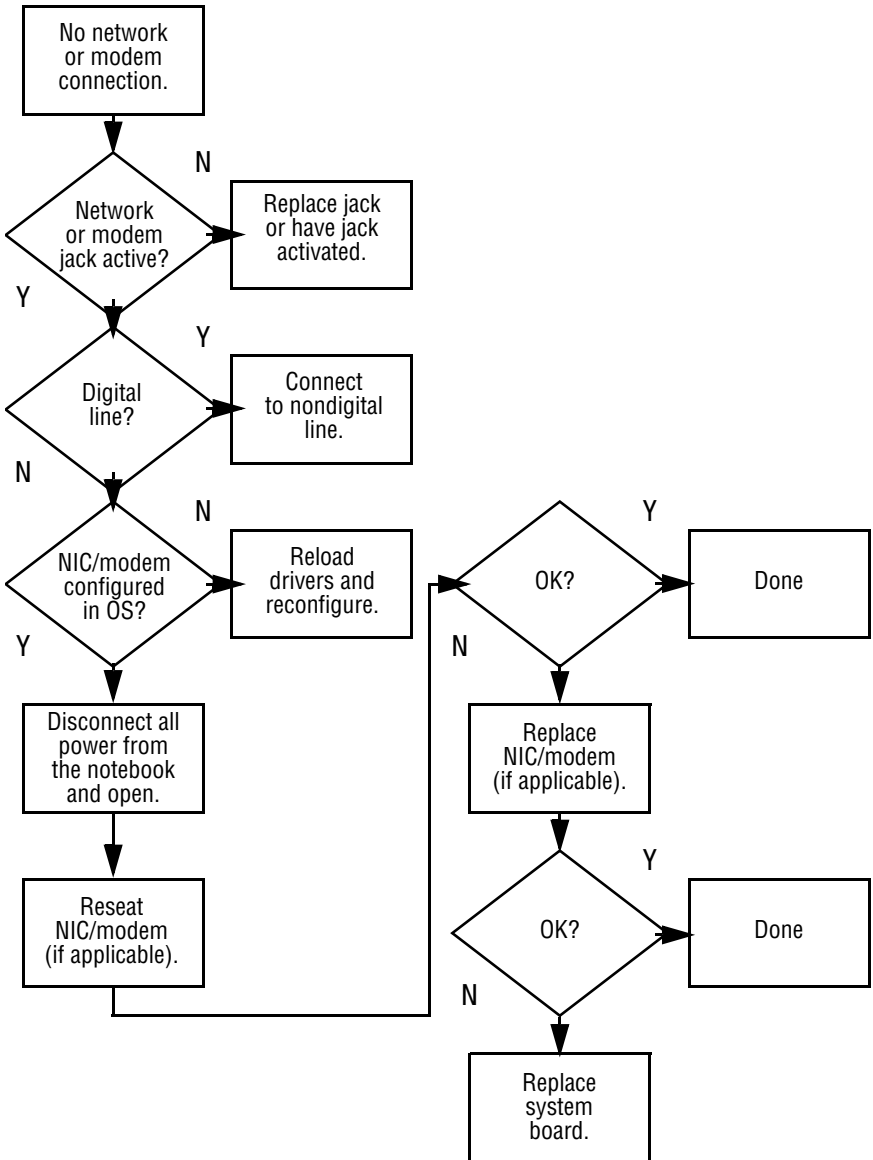
Flowchart 2.18—Nonfunctioning Keyboard



Flowchart 2.19—Nonfunctioning Pointing Device



Flowchart 2.20—No Network or Modem Connection



Illustrated Parts Catalog

This chapter provides an illustrated parts breakdown and a reference for spare part numbers and option part numbers.

3.1 Serial Number Location

When ordering parts or requesting information, provide the computer serial number and model number located on the bottom of the computer (Figure 3-1).

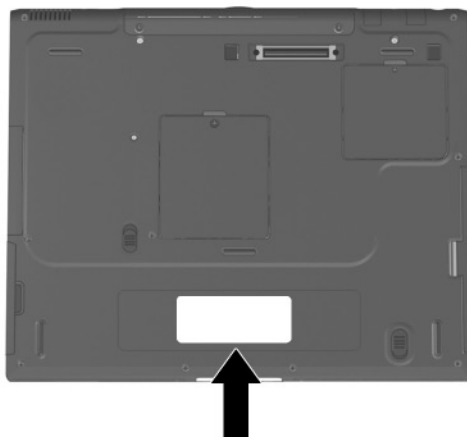


Figure 3-1. Serial Number Location

3.2 Computer System Major Components

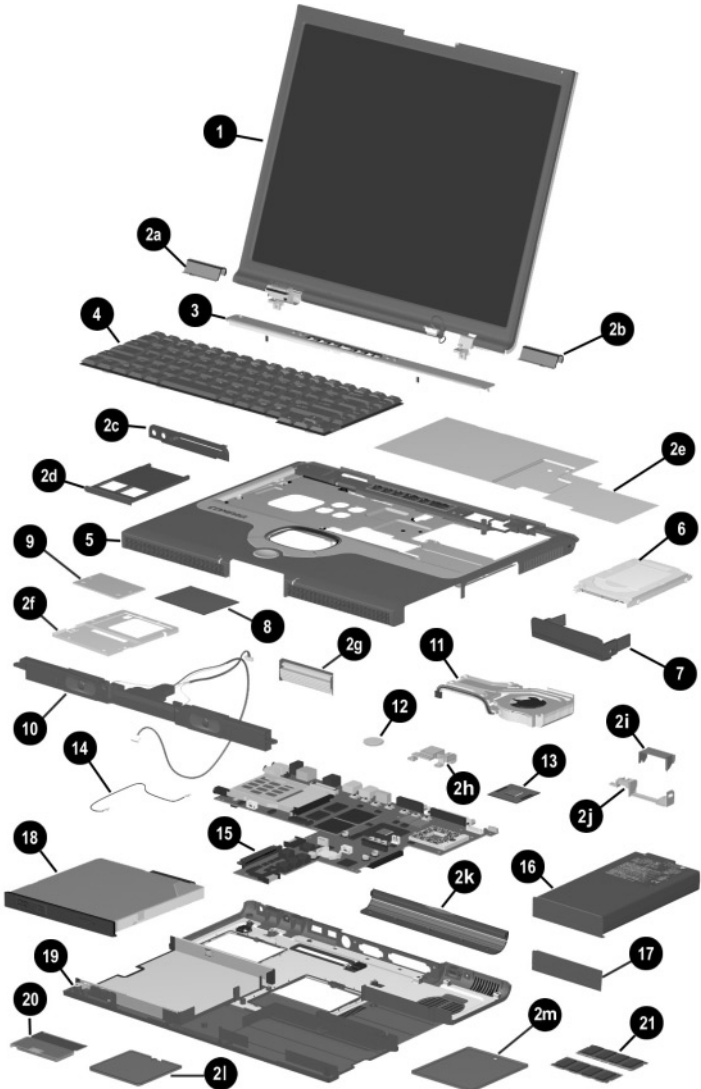


Figure 3-2. Computer System Major Components

Table 3-1
Spare Parts: Computer System Major Components

Item	Description	Spare Part Number
1	Displays	
	Contain parts with carbon finish for use with Evo Notebook N800c, N800v, and N800w models	
	15-inch, UXGA WVA	322511-001
	15-inch, UXGA	286872-001
	15-inch, SXGA+	286871-001
	15-inch, XGA	286870-001
	14-inch, XGA	286869-001
	Contain parts with silver finish for use with Presario 2800 models	
	15-inch, UXGA WVA	322510-001
	15-inch, UXGA	285265-001
	15-inch, SXGA+	285264-001
	15-inch, XGA	285263-001
	14-inch, XGA	285262-001
	MultiPort cover	289037-001

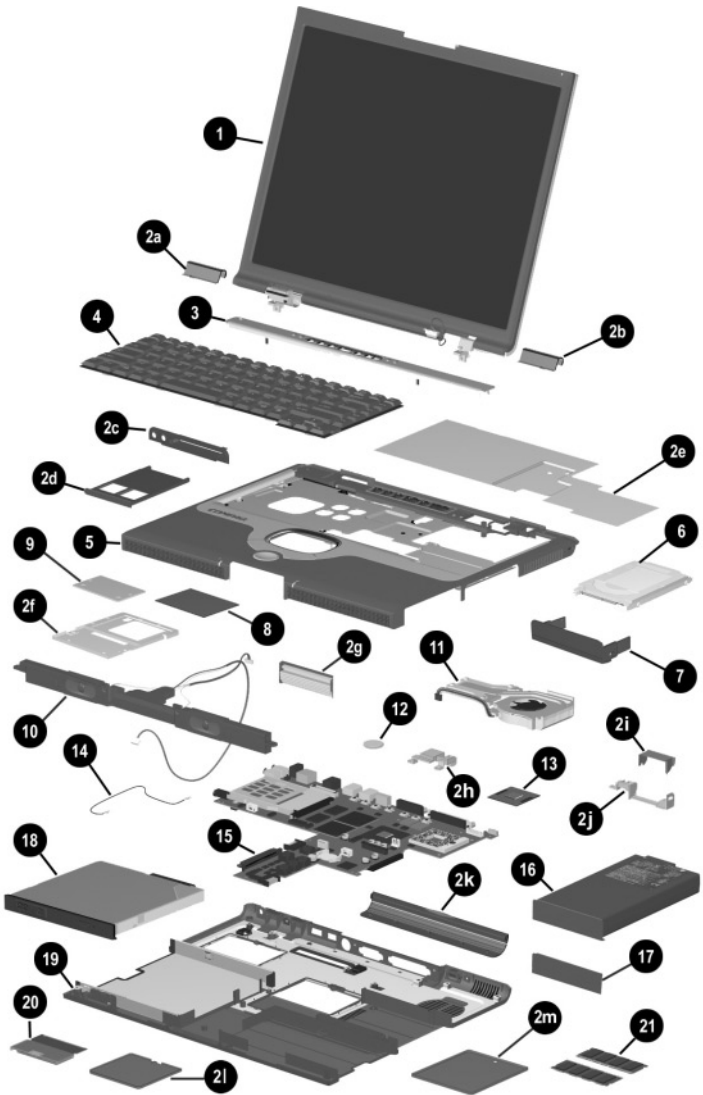


Figure 3-2. Computer System Major Components

Table 3-1
Spare Parts: Computer System Major Components (Continued)

Item	Description	Spare Part Number
Miscellaneous Plastics/Hardware Kit		
	Contains parts with silver finish for use with Presario 2800 models	285261-001
	Contains parts with carbon finish for use with Evo Notebook N800c, N800v, and N800w models	286868-001
	Includes:	
2a	Left hinge cover	not illustrated:
2b	Right hinge cover	Computer feet
2c	PC Card bezel	MultiBay weight saver
2d	PC Card slot space saver	Docking connector cover
2e	Keyboard shield	
2f	TouchPad bracket	
2g	Display assembly release	
2h	Left display support	
2i	Fan channel	
2j	Right display support	
2k	Connector cover	
2l	Mini PCI compartment cover	
2m	Memory expansion compartment cover	
3	LED cover	288503-001

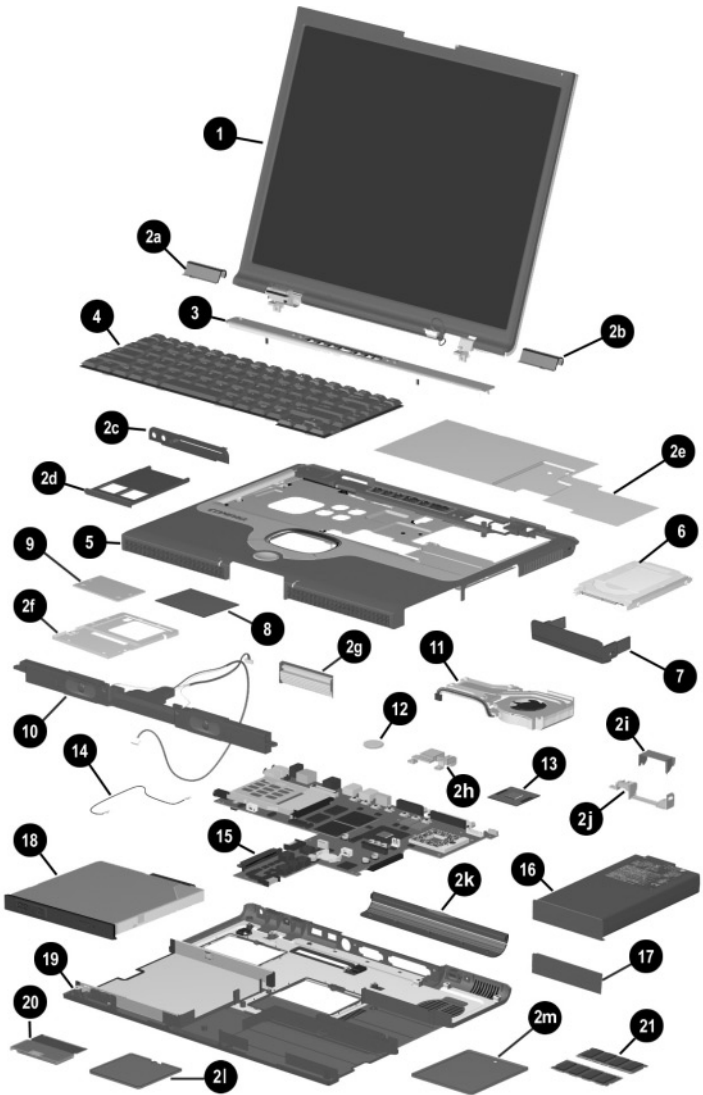


Figure 3-2. Computer System Major Components

Table 3-1
Spare Parts: Computer System Major Components (Continued)

Item	Description	Spare Part Number
4	Keyboards (for use with TouchPad models only)	
	Arabic	285280-171
	Belgian	285280-181
	Brazilian	285280-201
	Chinese	285280-AA1
	Czech	285280-221
	Danish	285280-081
	French	285280-051
	French Canadian	285280-121
	German	285280-041
	Greek	285280-151
	Hebrew	285280-BB1
	Hungarian	285280-211
	International	285280-002
	Italian	285280-061
	Korean	285280-AD1
	Latin American	285280-161
	Spanish	285280-161
	Norwegian	285280-091
	Portuguese	285280-131
	Russian	285280-251
	Slovakian	285280-231
	Swedish	285280-101
	Swiss	285280-111
	Taiwanese	285280-AB1
	Thai	285280-281
	Turkish	285280-141
	U.K. English	285280-031
	U.S. English	285280-001
	Keyboards with pointing stick	
	Arabic	285281-171
	Belgian	285281-181
	Brazilian	285281-201
	Czech	285281-221
	Danish	285281-081
	French	285281-051
	French Canadian	285281-121
	German	285281-041
	Greek	285281-151
	Hebrew	285281-BB1
	Hungarian	285281-211
	International	285281-002
	Italian	285281-061
	Korean	285281-AD1
	Latin American	285281-161
	Spanish	285281-161
	Norwegian	285281-091
	Portuguese	285281-131
	Russian	285281-251
	Slovakian	285281-231
	Swedish	285281-101
	Swiss	285281-111
	Taiwanese	285281-AB1
	Thai	285281-281
	Turkish	285281-141
	U.K. English	285281-031
	U.S. English	285281-001

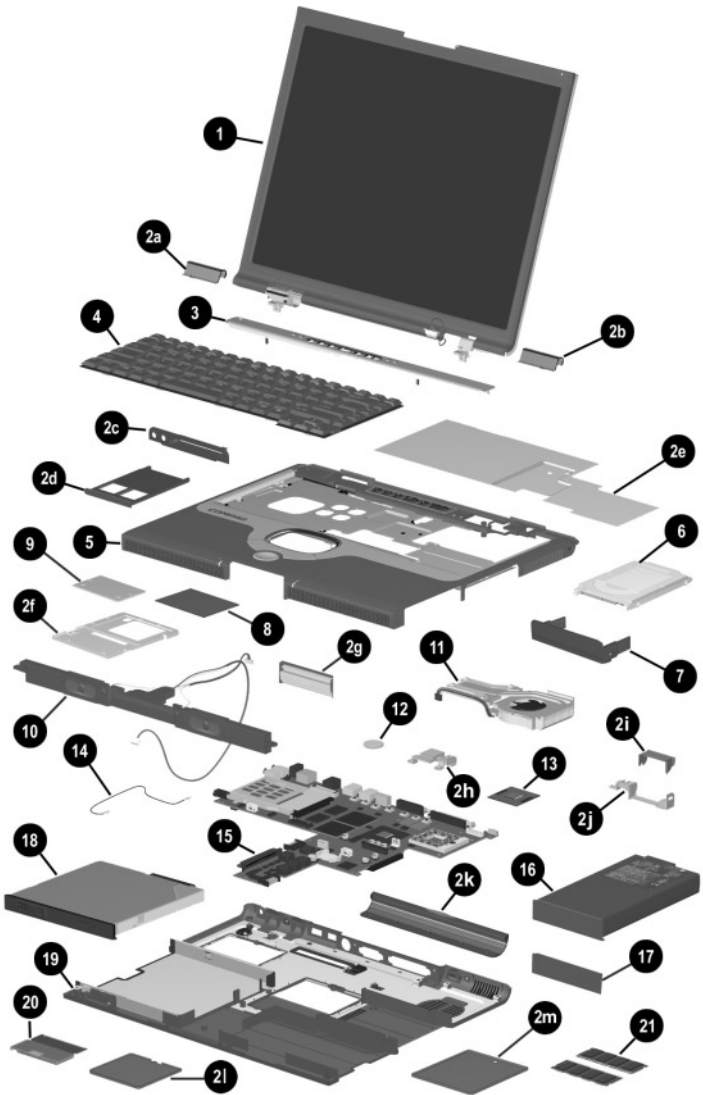


Figure 3-2. Computer System Major Components

Table 3-1
Spare Parts: Computer System Major Components (Continued)

Item	Description	Spare Part Number
5	Top cover	
	For Dual Point (TouchPad and Point Stick; for use only with Evo Notebook N800w models)	322504-001
	For Dual Point (TouchPad and Point Stick; for use only with Evo Notebook N800c and Evo Notebook N800v models)	322502-001
	For TouchPad only (silver finish for use with Presario 2800 models)	322503-001
	For TouchPad only (carbon finish for use with Evo Notebook N800c, N800v, and N800w models)	323747-001
6	Hard drives	
	60 GB	285277-001
	40 GB	285276-001
	40 GB (does not include hard drive bezel)	301245-001
	30 GB	285275-001
20 GB	285274-001	
7	Hard drive bezels	
	Hard drive bezel with silver finish for use with Presario 2800 models	286874-001
	Hard drive bezel with carbon finish for use with Evo Notebook N800c, N800v, and N800w models	286875-001
8	TouchPad	285258-001
9	TouchButton boards	
	For Dual Point (TouchPad and Point Stick)	285259-001
	For TouchPad only	285260-001

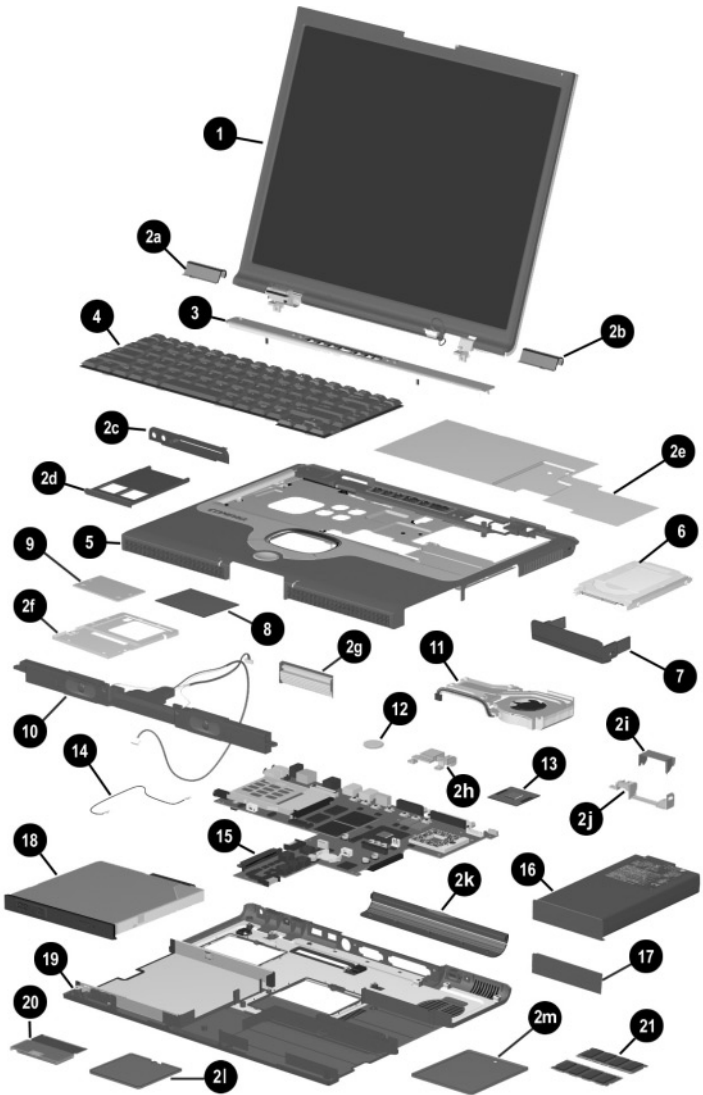


Figure 3-2. Computer System Major Components

Table 3-1
Spare Parts: Computer System Major Components (Continued)

Item	Description	Spare Part Number
10	Speaker assembly	285266-001
11	Fan	322499-001
12	Disk cell RTC battery	198718-001
13	Processors	
	Intel Mobile Pentium 4 with SpeedStep technology	
	2.4-GHz processor	322507-001
	2.2-GHz processor	308420-001
	2.0-GHz processor	305075-001
	1.9-GHz processor	305074-001
	1.8-GHz processor	285295-001
	1.7-GHz processor	285294-001
	1.6-GHz processor	285293-001
	1.5-GHz processor	285292-001
	1.4-GHz processor	285291-001
	Intel Mobile Pentium 4 (non-SpeedStep technology)	
	2.0-GHz processor	322506-001
	1.8-GHz processor	322505-001
	1.6-GHz processor	306704-001
	1.5-GHz processor	306703-001
	Thermal pad	314626-001
	Miscellaneous Cable Kit, includes:	285268-001
14a	Modem cable	

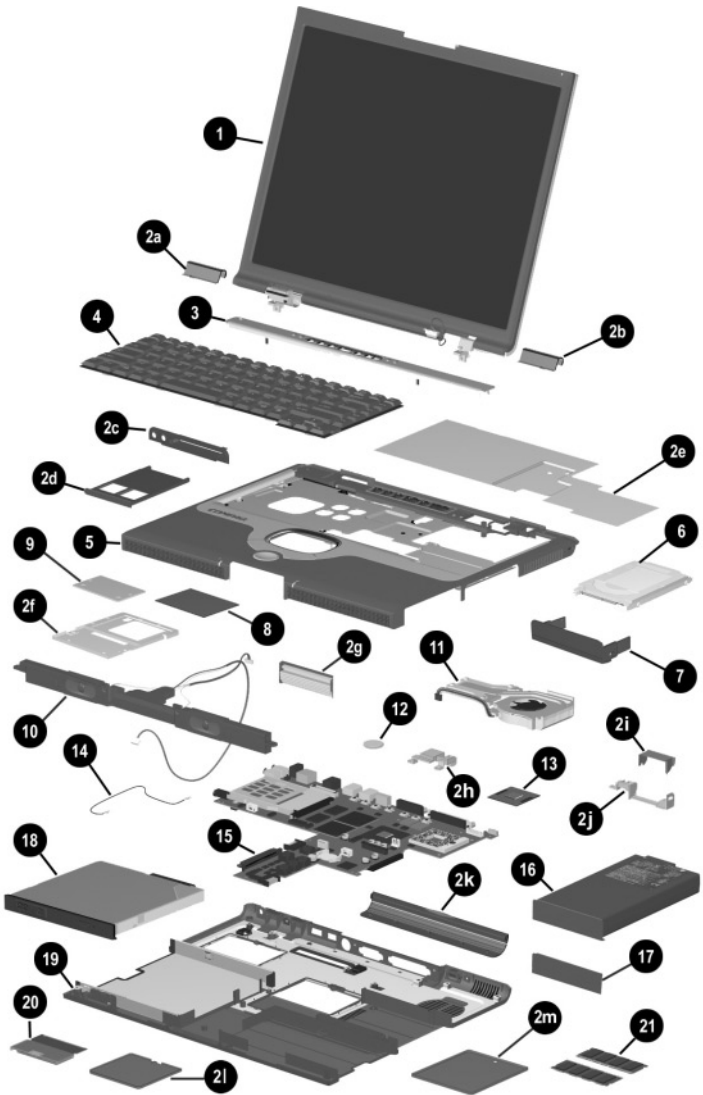


Figure 3-2. Computer System Major Components

Table 3-1
Spare Parts: Computer System Major Components (Continued)

Item	Description	Spare Part Number
15	System boards (do not contain memory)	
	With the ATI Mobile Radeon 9000 graphics controller for use only with the 90-watt AC adapter	
	64-MB of video memory	322498-001
	32-MB of video memory	322497-001
	With the ATI Mobile Radeon 9000 graphics controller	
	64-MB of video memory	310784-001
	32-MB of video memory	310783-001
	With the ATI P7 graphics controller	
	64-MB of video memory	285254-001
	32-MB of video memory	285253-001
16	Battery pack , 8 cell, 4.0 AH, 62 WH	281234-001
17	Battery bezels	
	Battery bezel with silver finish for use with Presario 2800 models	286876-001
	Battery bezel with carbon finish for use with Evo Notebook N800c, N800v, and N800w models	286877-001
18	MultiBay devices	
	Diskette drive	285278-001
	24X Max CD-ROM drive	285282-001
	24X Max CD-RW drive	322509-001
	16X Max CD-RW drive	301244-001
	8X Max CD-RW drive	285284-001
	8X Max DVD-ROM drive	285283-001
	24X Max DVD-ROM/CD-RW combination drive	301294-001
	8X Max DVD-ROM/CD-RW combination drive	285285-001
	LS-120 drive	285279-001
	Battery pack	281235-001

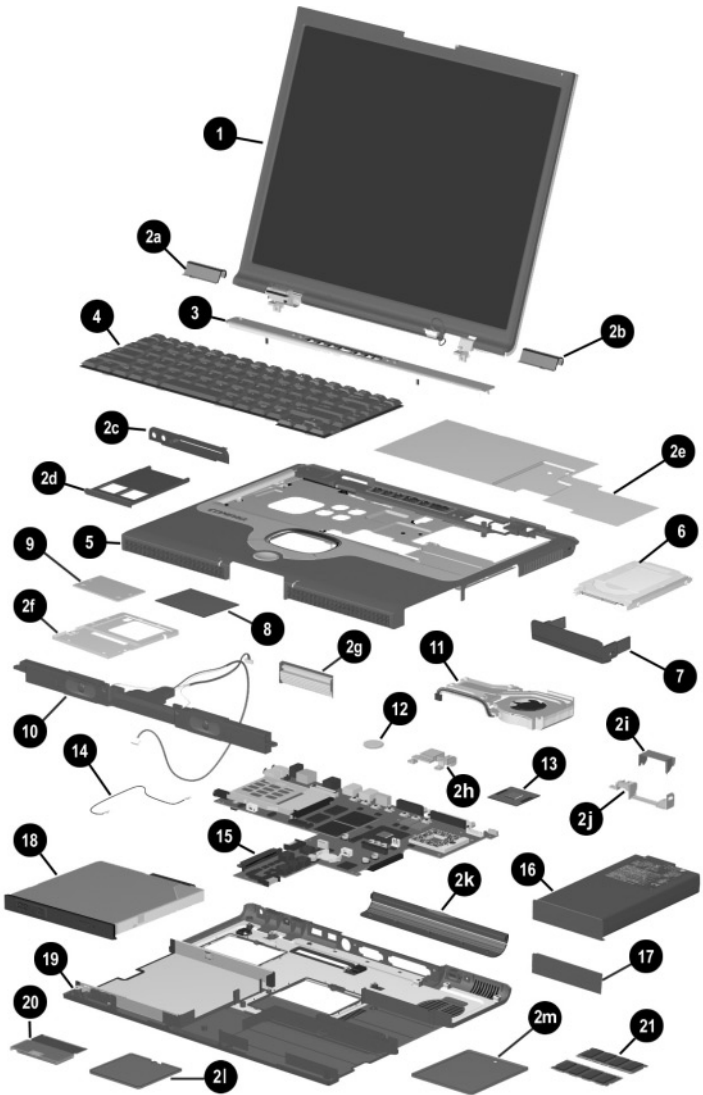
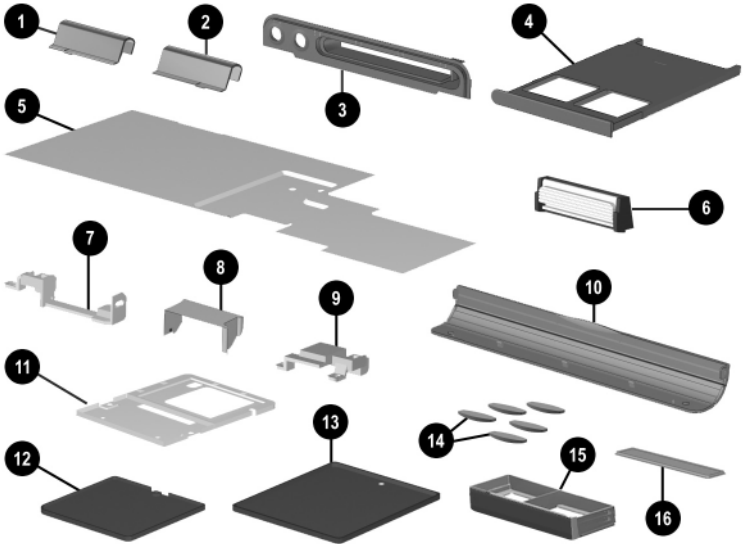


Figure 3-2. Computer System Major Components

Table 3-1
Spare Parts: Computer System Major Components (Continued)

Item	Description	Spare Part Number
19	Base enclosures (includes shield)	
	With silver finish (Presario 2800 models only)	322500-001
	With carbon finish (Evo Notebook N800c, N800v, and N800w models)	322501-001
20	Mini PCI communications boards	
	Modem, type III, mini PCI, 56 Kbps (United States)	285286-001
	Modem, type III, mini PCI, 56 Kbps (International)	285287-002
	Modem, type III, mini PCI, 56 Kbps	259489-001
21	Memory expansion boards	
	1024 MB	322508-001
	512 MB	285273-001
	256 MB	285272-001
	128 MB	285271-001

3.3 Miscellaneous Plastics/Hardware Kit Components



**Figure 3-3. Miscellaneous Plastics/Hardware
Kit Components**

Table 3-2
Miscellaneous Plastics/Hardware Kit Components
Spare Part Number 285261-001
 (contains parts with silver finish for use with Presario 2800 models)
Spare Part Number 286868-001
 (contains parts with carbon finish for use with
 Evo Notebook N800c, N800v, and N800w models)

Item	Description	Item	Description
1	Left hinge cover	9	Right display support
2	Right hinge cover	10	Connector cover
3	PC Card bezel	11	TouchPad bracket
4	PC Card slot space saver	12	Mini PCI compartment cover
5	Keyboard shield	13	Memory expansion compartment cover
6	Display release assembly	14	Computer feet (5)
7	Left display support	15	MultiBay weight saver
8	Fan channel	16	Docking connector cover

3.4 Mass Storage Devices

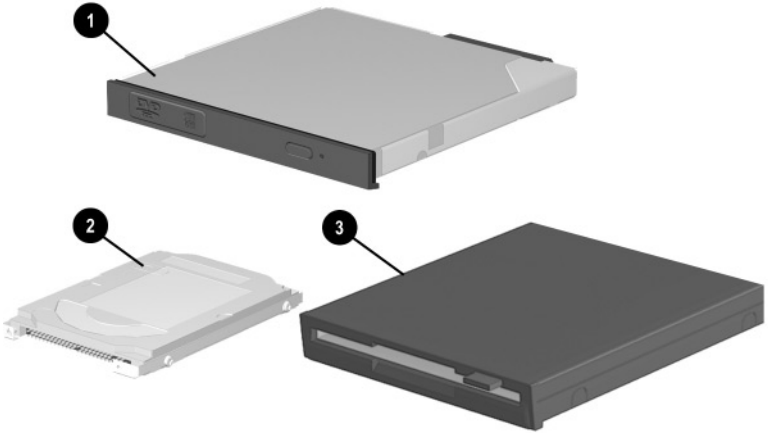


Figure 3-4. Mass Storage Devices

Table 3-3
Mass Storage Devices

Item	Description	Spare Part Number
1	Optical drives	
	24X Max CD-ROM drive	285282-001
	16X Max CD-RW drive	301244-001
	8X Max CD-RW drive	285284-001
	8X Max DVD-ROM drive	285283-001
	24X Max DVD-ROM/CD-RW combination drive	301294-001
	8X Max DVD-ROM/CD-RW combination drive	285285-001
2	Hard drives	
	60 GB	285277-001
	40 GB	285276-001
	40 GB (does not include hard drive bezel)	301245-001
	30 GB	285275-001
	20 GB	285274-001
3	Diskette drive	285278-001

3.5 Miscellaneous

Table 3-4
Spare Parts: Miscellaneous (not illustrated)

Description	Spare Part Number		
AC adapters			
90 watt	287515-001		
65 watt	285288-001		
Bluetooth MultiPort Module with cover	288504-001		
802.11b Wireless Local Area Network (LAN) MultiPort Module with cover	286873-001		
Logo Kit	288501-001		
Port replicators			
Advanced Port Replicator	288502-001		
Common Port Replicator	285289-001 and 316193-001		
Power cord, 2-wire			
Australian	174120-011	Swiss	174120-115
Chinese	174120-AA1	U.K. English	174120-031
International	174120-002	U.S. English	174120-001

Table 3-4
Spare Parts: Miscellaneous (not illustrated) (Continued)

Description			Spare Part Number
Power cord, 3-wire			
Australian	198723-011	Swedish	198723-101
Chinese	198723-AA1	Swiss	198723-BG1
International	198723-B31	Taiwanese	198723-AB1
Italian	198723-061	U.K. English	198723-031
Japanese	198723-291	U.S. English	198723-001
Korean	198723-AD1		
Screw Kit (includes the following screws; refer to Appendix C, "Screw Listing," for more information on screw specifications and usage.)			285290-001
■ Phillips M3.0 × 4.0		■ Phillips M2.0 × 8.0	
■ Phillips M2.5 × 9.0		■ Phillips M2.0 × 5.5	
■ Phillips M2.0 × 10.0		■ Phillips M2.0 × 4.0	

Removal and Replacement Preliminaries

This chapter provides essential information for proper and safe removal and replacement service.

4.1 Tools Required

You will need the following tools to complete the removal and replacement procedures:

- Magnetic screwdriver
- Phillips P0 screwdriver
- Tool kit (includes connector removal tool, loopback plugs, and case utility tool)

4.2 Service Considerations

The following sections include some of the considerations that you should keep in mind during disassembly and assembly procedures.



As you remove each subassembly from the computer, place the subassembly (and all accompanying screws) away from the work area to prevent damage.

Plastic Parts

Using excessive force during disassembly and reassembly can damage plastic parts. Use care when handling the plastic parts. Apply pressure only at the points designated in the maintenance instructions.

Cables and Connectors

Cables must be handled with extreme care to avoid damage. Apply only the tension required to unseat or seat the cables during removal and insertion. Handle cables by the connector whenever possible. In all cases, avoid bending, twisting, or tearing cables. Ensure that cables are routed in such a way that they cannot be caught or snagged by parts being removed or replaced. Handle flex cables with extreme care; these cables tear easily.



CAUTION: When servicing the computer, ensure that cables are placed in their proper locations during the reassembly process. Improper cable placement can damage the computer.

4.3 Preventing Damage to Removable Drives

Removable drives are fragile components that must be handled with care. To prevent damage to the computer, damage to a removable drive, or loss of information, observe the following precautions:

- Before removing or inserting a hard drive, shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on, then shut it down.
- Before removing a diskette drive or optical drive, ensure that a diskette or disc is not in the drive. Ensure that the optical drive tray is closed.
- Before handling a drive, ensure that you are discharged of static electricity. While handling a drive, avoid touching the connector.
- Handle drives on surfaces that have at least one inch of shock-proof foam.
- Avoid dropping drives from any height onto any surface.
- After removing a hard drive, CD-ROM drive, or a diskette drive, place it in a static-proof bag.
- Avoid exposing a hard drive to products that have magnetic fields, such as monitors or speakers.
- Avoid exposing a drive to temperature extremes or to liquids.
- If a drive must be mailed, place the drive in a bubble pack mailer or other suitable form of protective packaging and label the package “Fragile: Handle With Care.”

4.4 Preventing Electrostatic Damage

Many electronic components are sensitive to electrostatic discharge (ESD). Circuitry design and structure determine the degree of sensitivity. Networks built into many integrated circuits provide some protection, but in many cases the discharge contains enough power to alter device parameters or melt silicon junctions.

A sudden discharge of static electricity from a finger or other conductor can destroy static-sensitive devices or microcircuitry. Often the spark is neither felt nor heard, but damage occurs.

An electronic device exposed to electrostatic discharge may not be affected at all and can work perfectly throughout a normal cycle. Or the device may function normally for a while, then degrade in the internal layers, reducing its life expectancy.

4.5 Packaging and Transporting Precautions

Use the following grounding precautions when packaging and transporting equipment:

- To avoid hand contact, transport products in static-safe containers, such as tubes, bags, or boxes.
- Protect all electrostatic-sensitive parts and assemblies with conductive or approved containers or packaging.
- Keep electrostatic-sensitive parts in their containers until the parts arrive at static-free workstations.
- Place items on a grounded surface before removing items from their containers.
- Always be properly grounded when touching a sensitive component or assembly.

- Store reusable electrostatic-sensitive parts from assemblies in protective packaging or nonconductive foam.
- Use transporters and conveyors made of antistatic belts and roller bushings. Ensure that mechanized equipment used for moving materials is wired to ground and that proper materials are selected to avoid static charging. When grounding is not possible, use an ionizer to dissipate electric charges.

4.6 Workstation Precautions

Use the following grounding precautions at workstations:

- Cover the workstation with approved static-dissipative material (refer to Table 4-2).
- Use a wrist strap connected to a properly grounded work surface and use properly grounded tools and equipment.
- Use conductive field service tools, such as cutters, screwdrivers, and vacuums.
- When using fixtures that must directly contact dissipative surfaces, only use fixtures made of static-safe materials.
- Keep the work area free of nonconductive materials, such as ordinary plastic assembly aids and Styrofoam.
- Handle electrostatic-sensitive components, parts, and assemblies by the case or PCM laminate. Handle these items only at static-free workstations.
- Avoid contact with pins, leads, or circuitry.
- Turn off power and input signals before inserting or removing connectors or test equipment.

4.7 Grounding Equipment and Methods

Grounding equipment must include either a wrist strap or a foot strap at a grounded workstation.

- When seated, wear a wrist strap connected to a grounded system. Wrist straps are flexible straps with a minimum of one megohm $\pm 10\%$ resistance in the ground cords. To provide proper ground, wear a strap snugly against the skin at all times. On grounded mats with banana-plug connectors, connect a wrist strap with alligator clips.
- When standing, use foot straps and a grounded floor mat. Foot straps (heel, toe, or boot straps) can be used at standing workstations and are compatible with most types of shoes or boots. On conductive floors or dissipative floor mats, use foot straps on both feet with a minimum of one-megohm resistance between the operator and ground. To be effective, the conductive strips must be worn in contact with the skin.

Other grounding equipment recommended for use in preventing electrostatic damage includes:

- Antistatic tape
- Antistatic smocks, aprons, and sleeve protectors
- Conductive bins and other assembly or soldering aids
- Nonconductive foam
- Conductive tabletop workstations with ground cords of one-megohm resistance
- Static-dissipative tables or floor mats with hard ties to the ground
- Field service kits
- Static awareness labels
- Material-handling packages

- Nonconductive plastic bags, tubes, or boxes
- Metal tote boxes
- Electrostatic voltage levels and protective materials

Table 4-1 shows how humidity affects the electrostatic voltage levels generated by different activities.

Table 4-1
Typical Electrostatic Voltage Levels

Event	Relative Humidity		
	10%	40%	55%
Walking across carpet	35,000 V	15,000 V	7,500 V
Walking across vinyl floor	12,000 V	5,000 V	3,000 V
Motions of bench worker	6,000 V	800 V	400 V
Removing DIPS from plastic tube	2,000 V	700 V	400 V
Removing DIPS from vinyl tray	11,500 V	4,000 V	2,000 V
Removing DIPS from Styrofoam	14,500 V	5,000 V	3,500 V
Removing bubble pack from PCB	26,500 V	20,000 V	7,000 V
Packing PCBs in foam-lined box	21,000 V	11,000 V	5,000 V


 A product can be degraded by as little as 700 volts.

Table 4-2 lists the shielding protection provided by antistatic bags and floor mats.

Table 4-2
Static-Shielding Materials

Material	Use	Voltage Protection Level
Antistatic plastic	Bags	1,500 V
Carbon-loaded plastic	Floor mats	7,500 V
Metallized laminate	Floor mats	5,000 V

5

Removal and Replacement Procedures

This chapter provides removal and replacement procedures.

Phillips P1 screws are removed during disassembly. There are 48 screws, in nine different sizes, that must be removed, replaced, and loosened when servicing the computer. Make special note of each screw size and location during removal and replacement.

Refer to Appendix C, “Screw Listing,” for detailed information on screw sizes, locations, and usage.

5.1 Serial Number

Report the computer serial number to Compaq when requesting information or ordering spare parts. The serial number is located on the bottom of the computer (Figure 5-1).

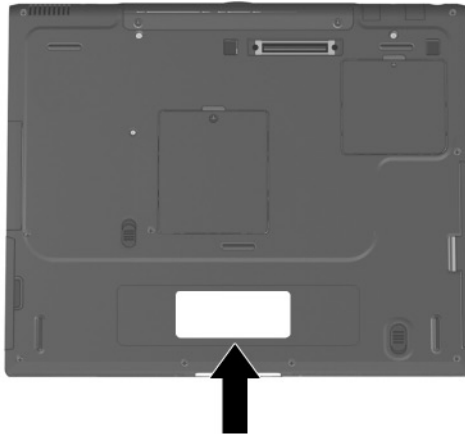


Figure 5-1. Serial Number Location

5.2 Disassembly Sequence Chart

Use the chart below to determine the section number to be referenced when removing computer components.

Table 5-1
Disassembly Sequence Chart

Section	Description	# of Screws Removed
5.3	Preparing the computer for disassembly	
	Battery pack	0

Table 5-1
Disassembly Sequence Chart (Continued)

Section	Description	# of Screws Removed
5.3 (continued)	MultiBay device	0
	Hard drive	1 to remove hard drive 2 to separate hard drive bezel from hard drive
5.4	Computer feet	0
5.5	Memory expansion board	1 loosened
5.6	Mini PCI communications board	1 loosened
5.7	Connector cover	2
5.8	LED cover	2
5.9	Keyboard	2 to remove keyboard shield
5.10	Display	4
5.11	Top cover	16
5.12	Speaker assembly	0
5.13	Display release assembly	2
5.14	TouchPad	4
5.15	Fan	4 loosened
5.16	Processor	0
5.17	Disk cell RTC battery	0
5.18	System board	5
5.19	Modem cable	0

5.3 Preparing the Computer for Disassembly

Perform the following steps before disassembling the computer:

1. Turn off the computer.
2. Disconnect the AC adapter and all external devices.
3. Remove the battery pack by following these steps:
 - a. Turn the computer bottom side up with the left side facing forward.
 - b. Slide and hold the battery release latch ❶ toward the back of the computer (Figure 5-2).
 - c. Use the notch in the battery bay to slide the battery pack out of the battery bay ❷.
 - d. Remove the battery pack.

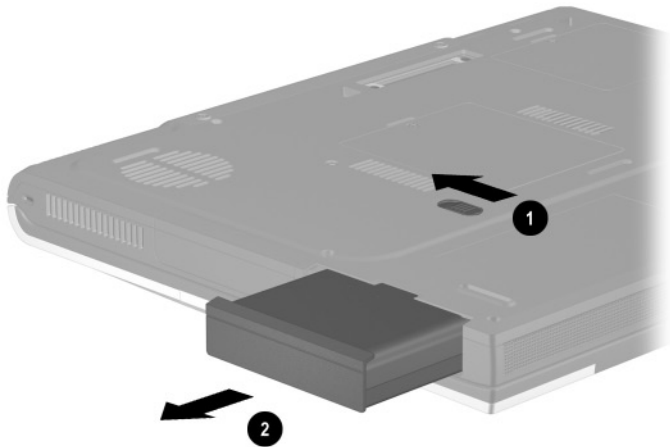


Figure 5-2. Removing the Battery Pack

Reverse the above procedures to install the battery pack.

4. To remove the battery bezel, slide the bezel straight down (Figure 5-3).

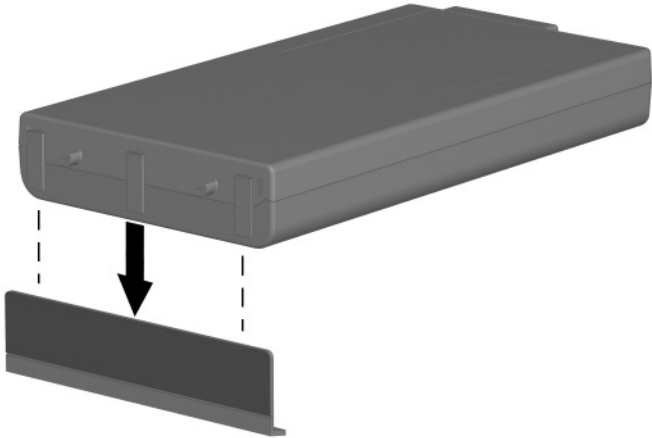


Figure 5-3. Removing the Battery Bezel

**Battery Bezel
Spare Part Number Information**

Battery bezel with silver finish for use with Presario 2800 models	286876-001
Battery bezel with carbon finish for use with Evo Notebook N800c, N800v, and N800w models	286877-001

Reverse the above procedures to install the battery bezel.

5. Remove the MultiBay device by following these steps:
 - a. Turn the computer bottom side up with the right side facing forward.
 - b. Slide and hold the MultiBay release latch toward the front of the computer ❶ (Figure 5-4).
 - c. Use the notch in the MultiBay device to slide the device out of the MultiBay ❷.
 - d. Remove the MultiBay device.

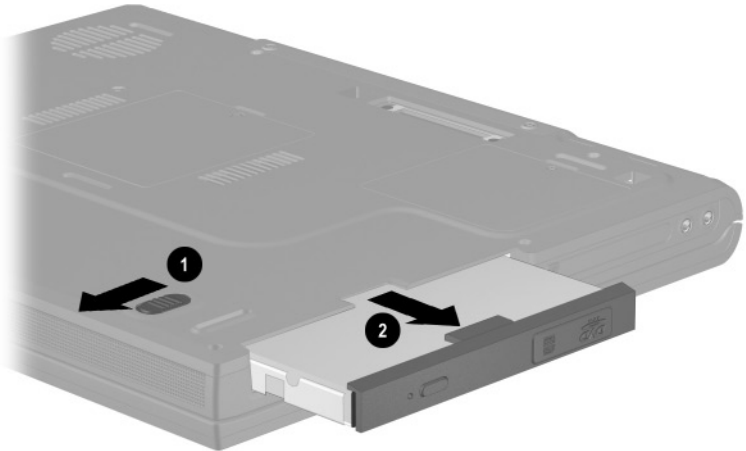


Figure 5-4. Removing a MultiBay Device

Reverse the above procedures to install a MultiBay device.

6. Remove the hard drive by following these steps:
 - a. Turn the computer bottom side up with the left side facing forward.
 - b. Remove the PM3.0 × 4.0 hard drive retention screw ❶ (Figure 5-5).
 - c. Slide the hard drive forward ❷ to unseat the hard drive connector from the system board.
 - d. Remove the hard drive.

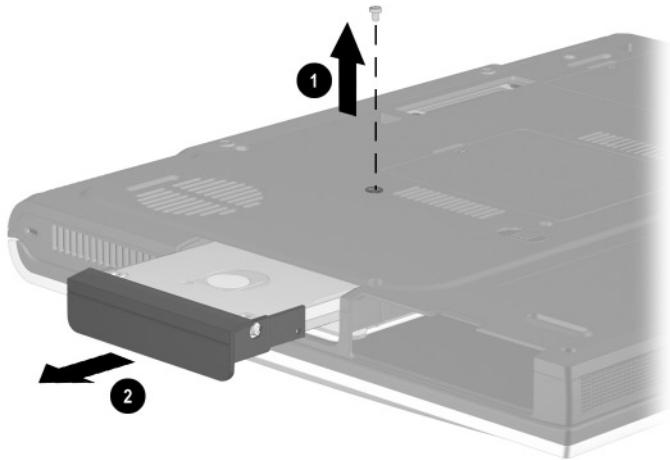


Figure 5-5. Removing the Hard Drive

7. Remove the two PM3.0 × 4.0 screws ❶ that secure the hard drive bezel to the hard drive (Figure 5-6).
8. Slide the hard drive bezel forward to separate it from the hard drive ❷.

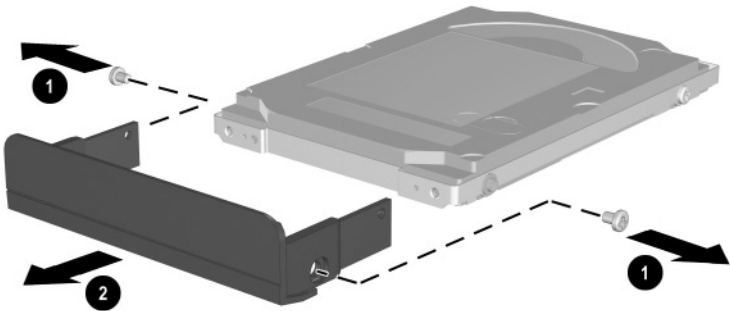


Figure 5-6. Removing the Hard Drive Bezel

**Hard Drive Bezel
Spare Part Number Information**

Hard drive bezel with silver finish for use with Presario 2800 models	286874-001
Hard drive bezel with carbon finish for use with Evo Notebook N800c, N800v, and N800w models	286875-001

Reverse the above procedure to install the hard drive and hard drive bezel.

5.4 Computer Feet

The computer feet are adhesive-backed rubber pads. The computer feet are included in the Miscellaneous Plastics/Hardware Kit, spare part numbers 285261-001 and 286868-001. The computer feet attach to the base enclosure as illustrated in Figure 5-7.

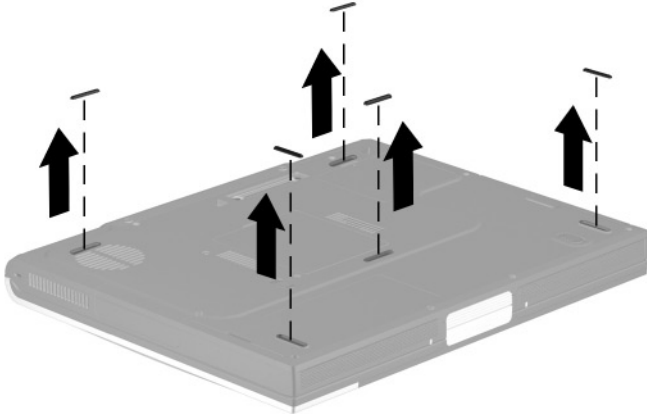


Figure 5-7. Replacing the Computer Feet

5.5 Memory Expansion Board

Memory Expansion Boards Spare Part Number Information

1024 MB	322508-001
512 MB	285273-001
256 MB	285272-001
128 MB	285271-001

1. Prepare the computer for disassembly (Section 5.3).
2. Turn the computer bottom side up with the rear panel facing forward.
3. Remove the PM2.0 \times 5.0 screw ❶ that secures the memory expansion compartment cover to the base enclosure (Figure 5-8).
4. Lift the front edge of the cover and swing it back ❷.
5. Remove the cover ❸.

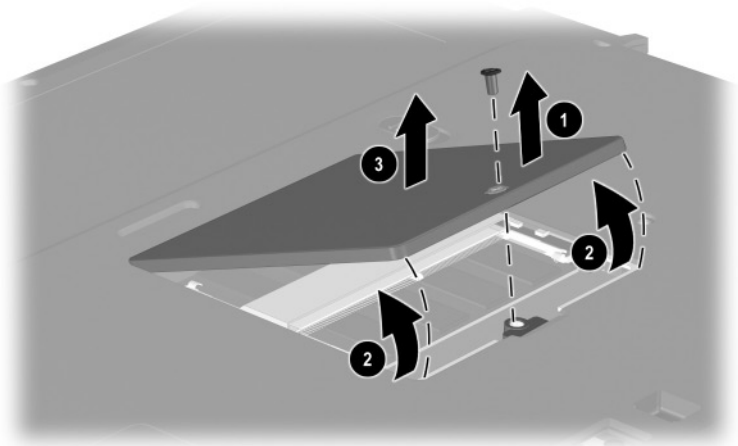


Figure 5-8. Removing the Memory Expansion Compartment Cover



Memory expansion compartment covers are available with silver finish for Presario 2800 models and carbon finish for Evo Notebook N800c, N800v, and N800w models. These covers are included in the Miscellaneous Plastics/Hardware Kit, spare part number 285261-001 for Presario 2800 models, and spare part number 286868-001 for Evo Notebook N800c, N800v, and N800w models.

6. Spread the memory expansion slot retaining tabs to release the memory expansion board ❶. The board tilts up at a 45-degree angle (Figure 5-9).
7. Remove the board by pulling it away from the connector at a 45-degree angle ❷.

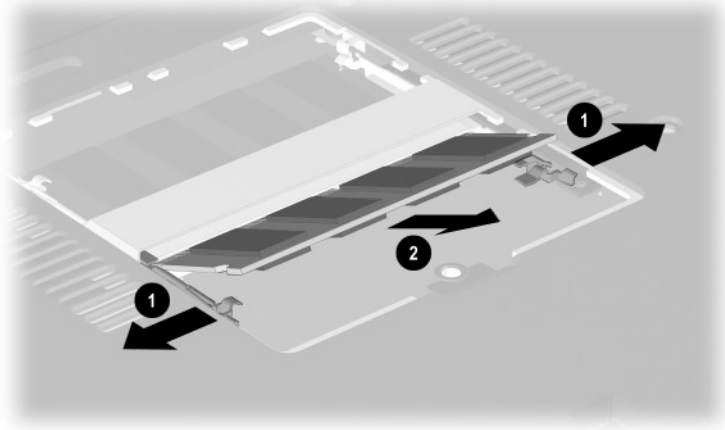


Figure 5-9. Removing a Memory Expansion Board

Reverse the above procedure to install a memory expansion board.

5.6 Mini PCI Communications Board

Mini PCI Communication Boards Spare Part Number Information

U.S. modem	285286-001
International modem	285287-001

1. Prepare the computer for disassembly (Section 5.3).
2. Turn the computer bottom side up with the rear panel facing forward.

3. Remove the PM2.0 × 5.0 screw ❶ that secures the mini PCI compartment cover to the base enclosure (Figure 5-10).
4. Lift the front edge of the cover and swing it back ❷.
5. Remove the cover ❸.

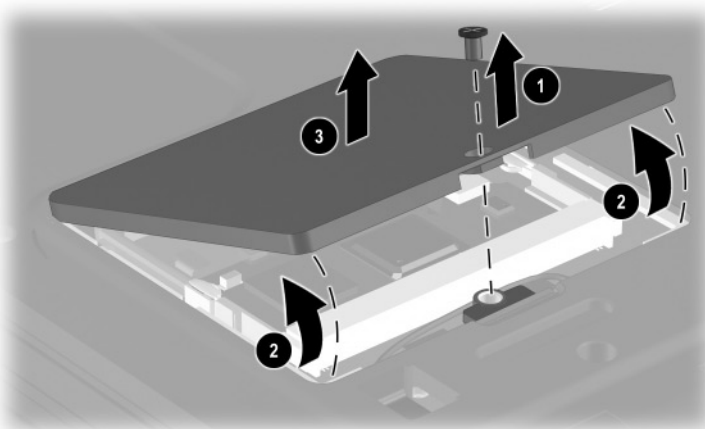


Figure 5-10. Removing the Mini PCI Communications Slot Cover



Mini PCI compartment covers are available with silver finish for Presario 2800 models and carbon finish for Evo Notebook N800c, N800v, and N800w models. These covers are included in the Miscellaneous Plastics/Hardware Kit, spare part number 285261-001 for Presario 2800 models, and spare part number 286868-001 for Evo Notebook N800c, N800v, and N800w models.

6. Disconnect the modem cable from the modem board ❶ (Figure 5-11).



The modem cable spare part number is 285268-001.

7. Spread the retaining tabs to release the mini PCI communications board ❷. The board tilts up at a 45-degree angle.
8. Remove the board by pulling it away from the connector at a 45-degree angle ❸.

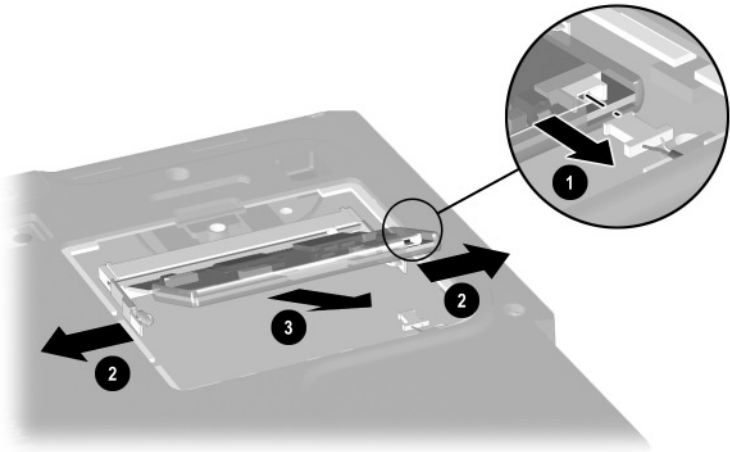


Figure 5-11. Removing a Mini PCI Communications Board

Reverse the above procedure to install a mini PCI communications board.

5.7 Connector Cover



The connector cover is available with silver finish for Presario 2800 models and carbon finish for Evo Notebook N800c, N800v, and N800w models. This cover is included in the Miscellaneous Plastics/Hardware Kit, spare part number 285261-001 for Presario 2800 models, and spare part number 286868-001 for Evo Notebook N800c, N800v, and N800w models.

1. Prepare the computer for disassembly (Section 5.3).
2. Turn the computer bottom side up with the rear panel facing forward.
3. Remove the two PM2.0 × 5.5 screws ❶ that secure the connector cover to the base enclosure (Figure 5-12).
4. Open the connector cover.
5. Remove the connector cover from the base enclosure ❷.

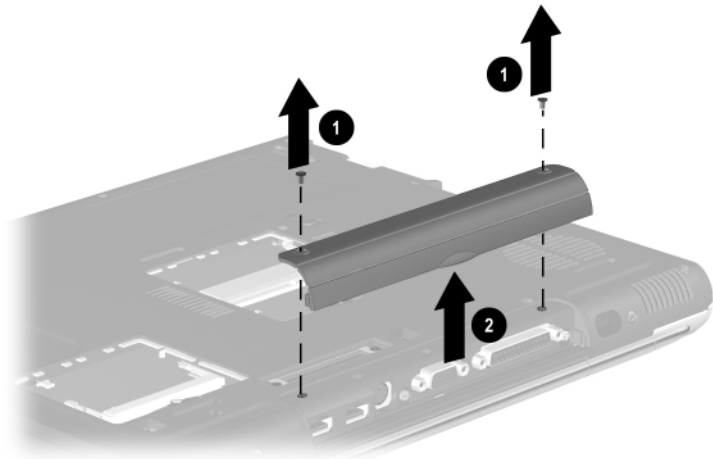


Figure 5-12. Removing the Connector Cover

Reverse the above procedure to install the connector cover.

5.8 LED Cover

LED Cover Spare Part Number Information

LED cover

288503-001

1. Prepare the computer for disassembly (Section 5.3).
2. Turn the computer bottom side up with the rear panel facing forward.
3. Remove the two black PM2.0 × 10.0 screws that secure the LED cover to the base enclosure (Figure 5-13).

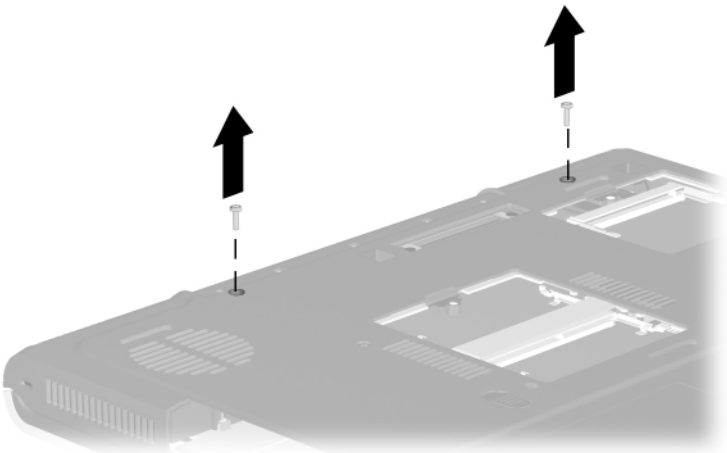


Figure 5-13. Removing the LED Cover Screws

4. Turn the computer top side up with the front facing forward.
5. Open the computer.

6. Use a flat-bladed tool to pry forward on the four clips on the LED cover ❶ (Figure 5-14).
7. Press the **esc** and **F1** keys to reveal the left notch ❷ in the LED cover.
8. Insert a flat-bladed tool into the left notch and lift the left side of the LED cover ❸.
9. Press the **Pause** and **Del** keys to reveal the right notch ❹ in the LED cover.
10. Insert a flat-bladed tool into the right notch and lift the right side of the LED cover ❺.
11. Remove the LED cover ❻.

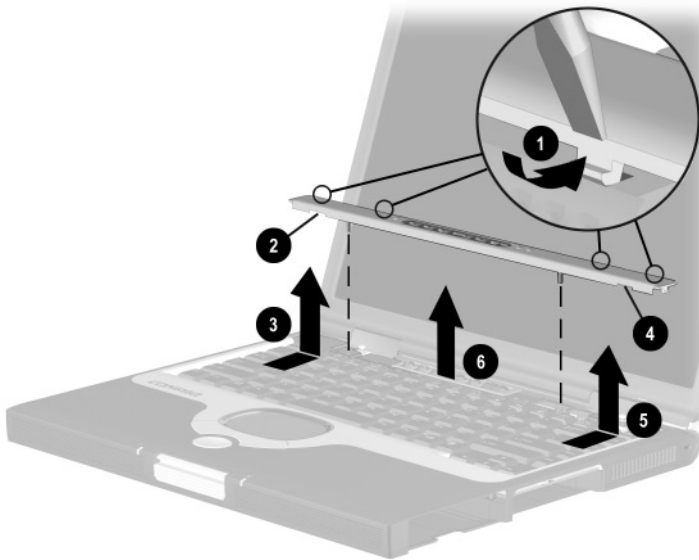


Figure 5-14. Removing the LED Cover

Reverse the above procedure to install the LED cover.

5.9 Keyboard

Keyboards Spare Part Number Information

Keyboards (for use with TouchPad models only)

Arabic	285280-171	Korean	285280-AD1
Belgian	285280-181	Latin American Spanish	285280-161
Brazilian	285280-201	Norwegian	285280-091
Chinese	285280-AA1	Portuguese	285280-131
Czech	285280-221	Russian	285280-251
Danish	285280-081	Slovakian	285280-231
French	285280-051	Spanish	285280-071
French Canadian	285280-121	Swedish	285280-101
German	285280-041	Swiss	285280-111
Greek/Polish	285280-151	Taiwanese	285280-AB1
Hebrew	285280-BB1	Thai	285280-281
Hungarian	285280-211	Turkish	285280-141
International	285280-002	U.K. English	285280-031
Italian	285280-061	U.S. English	285280-001

Keyboards with pointing stick

Arabic	285281-171	Latin American Spanish	285281-161
Belgian	285281-181	Norwegian	285281-091
Brazilian	285281-201	Portuguese	285281-131
Czech	285281-221	Russian	285281-251
Danish	285281-081	Slovakian	285281-231
French	285281-051	Spanish	285281-071
French Canadian	285281-121	Swedish	285281-101
German	285281-041	Swiss	285281-111
Greek/Polish	285281-151	Taiwanese	285281-AB1
Hebrew	285281-BB1	Thai	285281-281
Hungarian	285281-211	Turkish	285281-141
International	285281-002	U.K. English	285281-031
Italian	285281-061	U.S. English	285281-001
Korean	285281-AD1		

1. Prepare the computer for disassembly (Section 5.3).
2. Remove the LED cover (Section 5.8).
3. Lift the back edge of the keyboard ❶ (Figure 5-15).
4. Slide the keyboard toward the back of the computer ❷.
5. Lift the back edge of the keyboard and swing it forward ❸ until it rests on the palm rest.

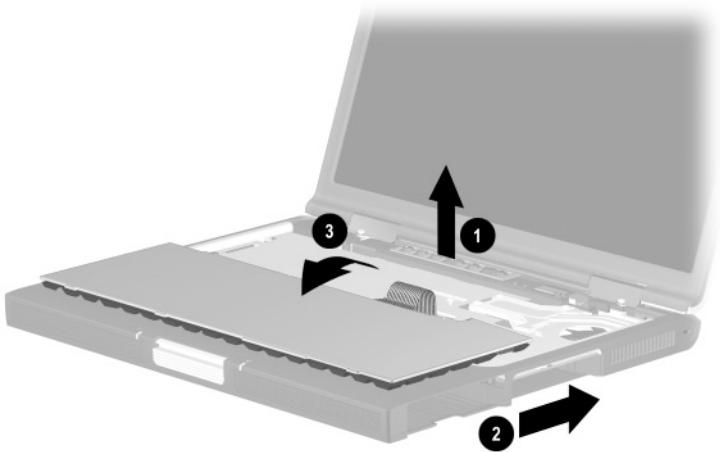


Figure 5-15. Releasing the Keyboard

6. Remove the two PM2.0 × 4.0 screws ❶ that secure the keyboard shield to the base enclosure (Figure 5-16).
7. Remove the keyboard shield ❷.

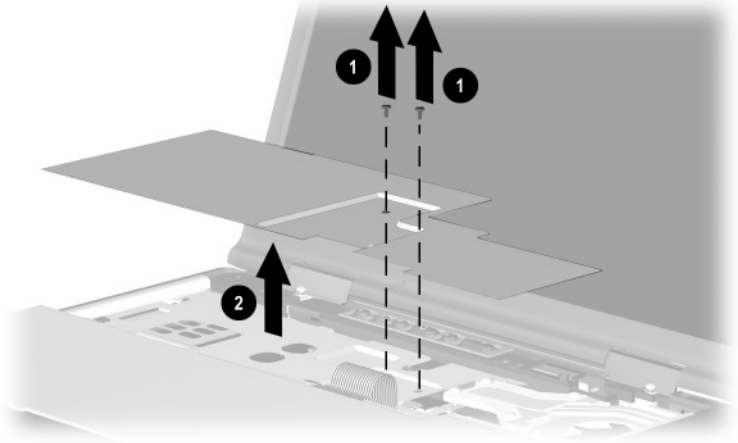


Figure 5-16. Removing the Keyboard Shield



The keyboard shield is included in the Miscellaneous Plastics/Hardware Kit, spare part numbers 285261-001 and 286868-001.

8. Release the ZIF connector ❶ to which the keyboard cable is connected and disconnect the keyboard cable ❷ from the system board (Figure 5-17).
9. Remove the keyboard.

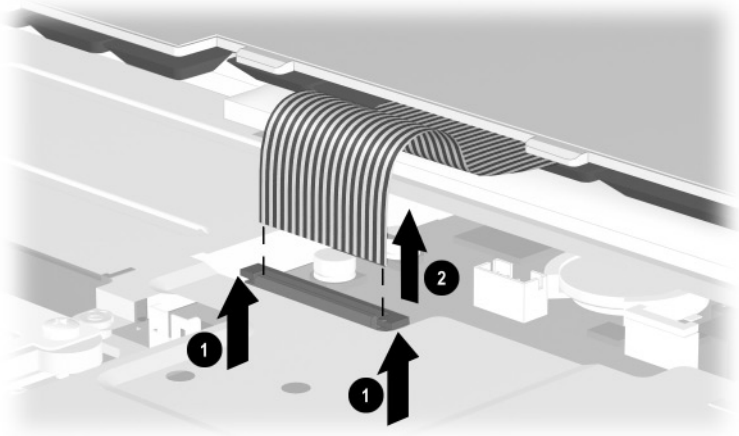


Figure 5-17. Removing the Keyboard

Reverse the above procedure to install the keyboard.

5.10 Display

Displays Spare Part Number Information

Contain parts with carbon finish for use with Evo Notebook N800c, N800v, and N800w models

15-inch, UXGA WVA	322511-001
15-inch, UXGA	286872-001
15-inch, SXGA+	286871-001
15-inch, XGA	286870-001
14-inch, XGA	286869-001

Contain parts with silver finish for use with Presario 2800 models

15-inch, UXGA WVA	322510-001
15-inch, UXGA	285265-001
15-inch, SXGA+	285264-001
15-inch, XGA	285263-001
14-inch, XGA	285262-001
MultiPort cover	289037-001

1. Prepare the computer for disassembly (Section 5.3).
2. Remove the LED cover (Section 5.8).
3. Close the computer and position the computer so the rear panel faces forward.

4. Remove the two PM2.5 × 9.0 screws that secure the display hinges to the base enclosure (Figure 5-18).

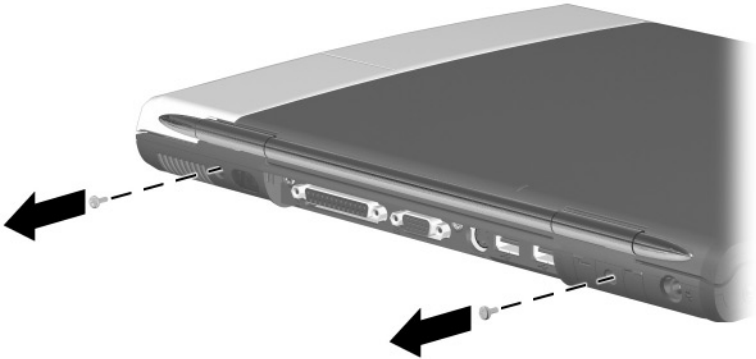


Figure 5-18. Removing the Display Screws

5. Position the computer so the front faces forward and open the computer.
6. Disconnect the display video **1** and display inverter **2** cables from the system board (Figure 5-19).
7. Remove the two PM2.0 × 10.0 screws **3** that secure the display hinges to the base enclosure.
8. Lift the display straight up **4** and remove it from the base enclosure.

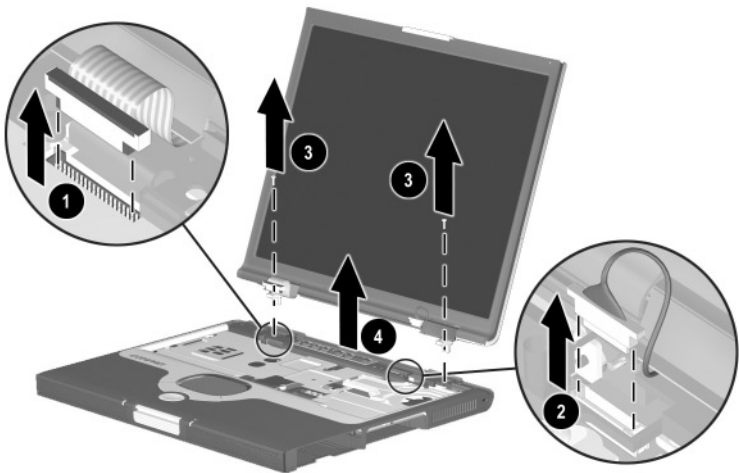


Figure 5-19. Removing the Display

9. Remove the hinge covers from the display (Figure 5-20).

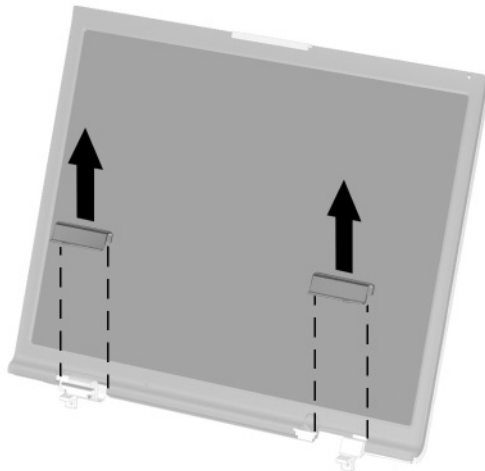


Figure 5-20. Removing the Hinge Covers



The display hinge covers are included in the Miscellaneous Plastics/Hardware Kit, spare part numbers 285261-001 and 286868-001.



Install the hinge covers on the display before installing the display on the base enclosure.

Reverse the above procedure to install the display.

5.11 Top Cover

Top Cover Spare Part Number Information

For Dual Point (TouchPad and Point Stick; for use only with Evo Notebook N800w models)	322504-001
For Dual Point (TouchPad and Point Stick; for use only with Evo Notebook N800c and Evo Notebook N800v models)	322502-001
For TouchPad only (silver finish for use with Presario 2800 models)	322503-001
For TouchPad only (carbon finish for use with Evo Notebook N800c, N800v, and N800w models)	323747-001

1. Prepare the computer for disassembly (Section 5.3) and remove the following components:
 - a. LED cover (Section 5.8)
 - b. Keyboard and shield (Section 5.9)
 - c. Display (Section 5.10)
2. Turn the computer bottom side up with the front facing forward.

3. Remove the nine PM2.0 × 8.0 screws ❶ securing the top cover to the base enclosure (Figure 5-21).
4. Remove the PM2.0 × 4.0 screw ❷ securing the top cover to the base enclosure in the hard drive bay.



Do not remove the screw in the middle of the hard drive bay ❸.

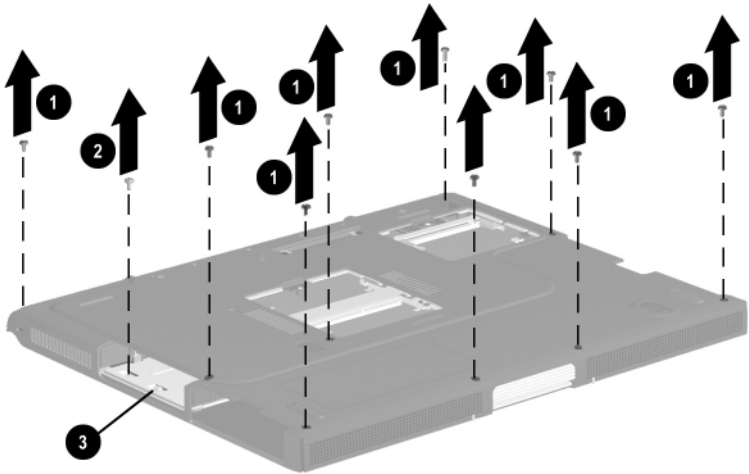


Figure 5-21. Removing the Top Cover Screws

5. Turn the computer top side up with the rear panel facing forward.

6. Disconnect the drive activity light and battery power light cable from the system board ❶ (Figure 5-22).
7. Release the ZIF connector ❷ to which the TouchPad cable is connected and disconnect the TouchPad cable ❸ from the system board.
8. Disconnect the speaker cable ❹ from the system board.

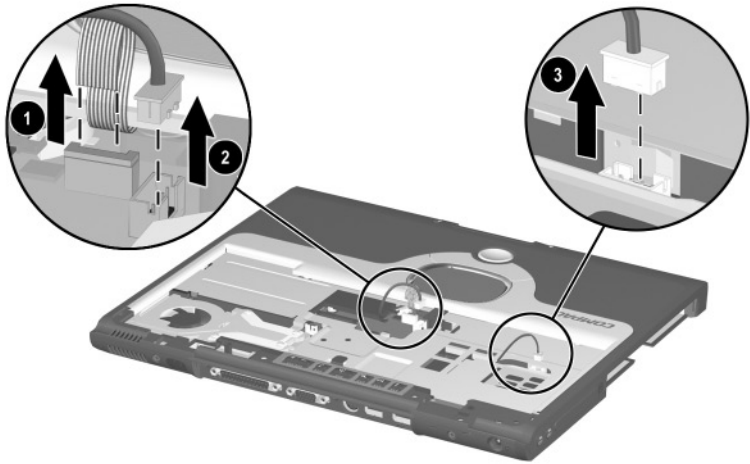


Figure 5-22. Disconnecting the Drive Activity Light/Battery Power Light, TouchPad, and Speaker Cables

9. Remove the following screws:

- a. Two PM2.0 × 5.5 screws ❶ that secure the top cover to the base enclosure on the computer rear panel (Figure 5-23)
- b. Two PM2.0 × 4.0 screws ❷ that secure the top cover to the base enclosure through the metal tabs on the top cover shield
- c. Two PM2.0 × 8.0 screws ❸ that secure the top cover to the base enclosure through the plastic tabs on the top cover

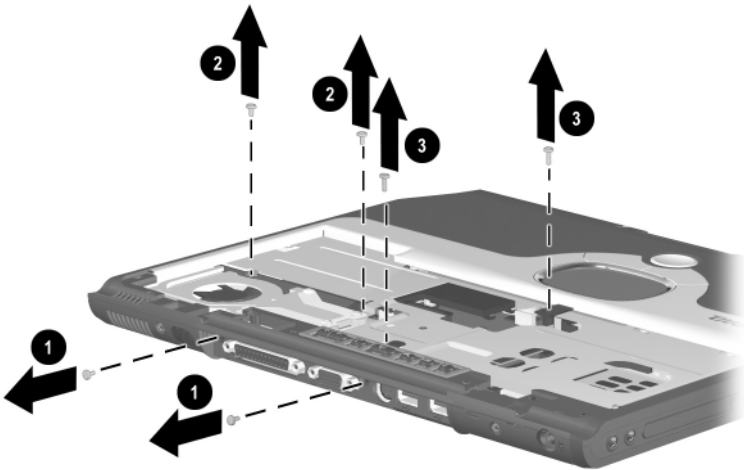


Figure 5-23. Removing the Top Cover Screws

10. Remove the top cover (Figure 5-24).

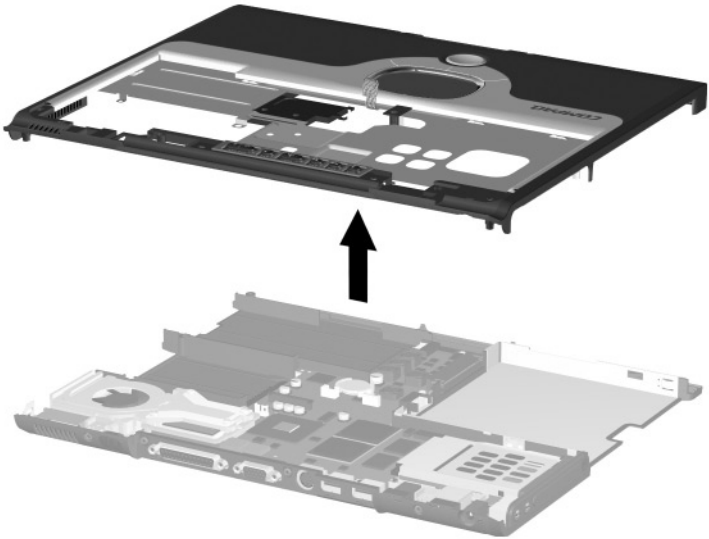


Figure 5-24. Removing the Top Cover

Reverse the above procedure to install the top cover.

5.12 Speaker Assembly

Speaker Assembly Spare Part Number Information

Speaker assembly

285266-001

1. Prepare the computer for disassembly (Section 5.3) and remove the following components:
 - a. LED cover (Section 5.8)
 - b. Keyboard and shield (Section 5.9)
 - c. Display (Section 5.10)
 - d. Top cover (Section 5.11)
2. Position the top cover bottom side up with the front facing forward.

3. Route the drive activity light/battery power light cable and speaker cable out of the retaining clips in the top cover ❶ and ❷ (Figure 5-25).
4. Remove the strip of tape ❸ that secures the speaker assembly and TouchPad cables to the top cover and TouchPad assembly.
5. Remove the PM2.0 × 4.0 screw ❹ that secures the speaker assembly to the top cover.
6. Lift the speaker assembly straight up ❺ and remove it from the top cover.

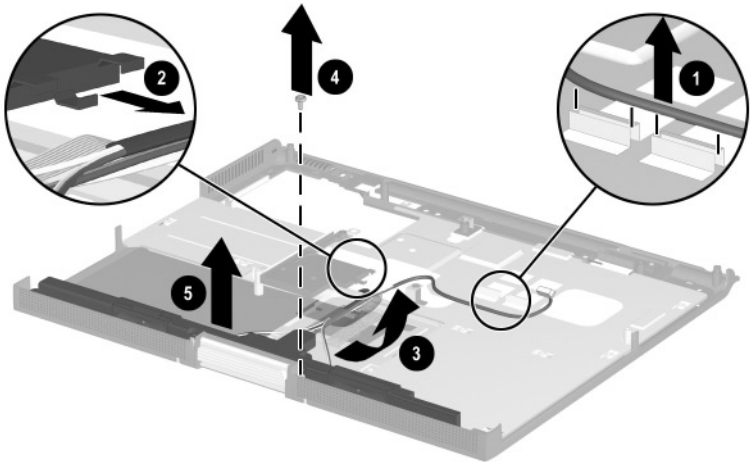


Figure 5-25. Removing the Speaker Assembly

Reverse the above procedure to install the speaker assembly.

5.13 Display Release Assembly



The display release assembly is available with silver finish for Presario 2800 models and carbon finish for Evo Notebook N800c, N800v, and N800w models. This assembly is included in the Miscellaneous Plastics/Hardware Kit, spare part number 285261-001 for Presario 2800 models, and spare part number 286868-001 for Evo Notebook N800c, N800v, and N800w models.

1. Prepare the computer for disassembly (Section 5.3) and remove the following components:
 - a. LED cover (Section 5.8)
 - b. Keyboard and shield (Section 5.9)
 - c. Display (Section 5.10)
 - d. Top cover (Section 5.11)
2. Position the top cover bottom side up with the front facing forward.

3. Remove the two PM2.0 × 4.0 screws ❶ that secure the display release assembly to the top cover (Figure 5-26).
4. Lift the display release assembly straight up ❷ and remove it from the top cover.

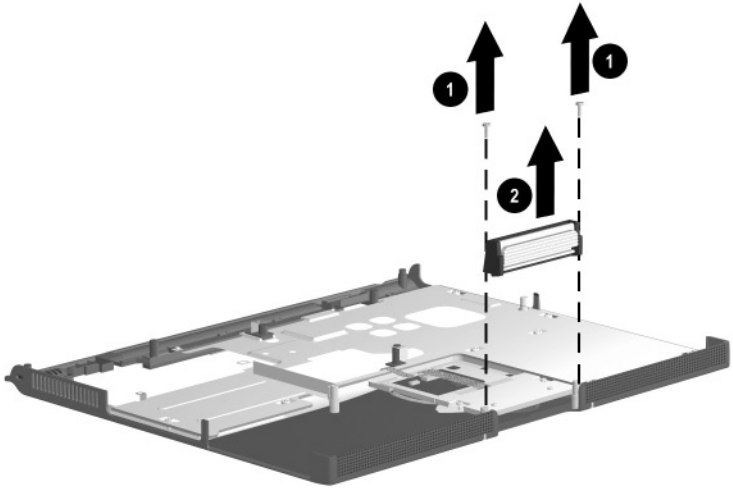


Figure 5-26. Removing the Display Release Assembly

Reverse the above procedure to install the display release assembly.

5.14 TouchPad

TouchPad and TouchButton Board Spare Part Number Information

TouchPad	285258-001
TouchButton board for Dual Point	285259-001
TouchButton board for TouchPad	285260-001

1. Prepare the computer for disassembly (Section 5.3) and remove the following components:
 - a. LED cover (Section 5.8)
 - b. Keyboard and shield (Section 5.9)
 - c. Display (Section 5.10)
 - d. Top cover (Section 5.11)
 - e. Speaker assembly (Section 5.12)

2. Remove the four PM2.0 × 4.0 screws ❶ that secure the TouchPad bracket to the top cover (Figure 5-27).
3. Disconnect the TouchPad cable ❷ from the low insertion force (LIF) connector on the TouchPad.
4. Slide the TouchPad bracket toward the back of the top cover ❸.
5. Lift the TouchPad bracket straight up ❹ and remove it.

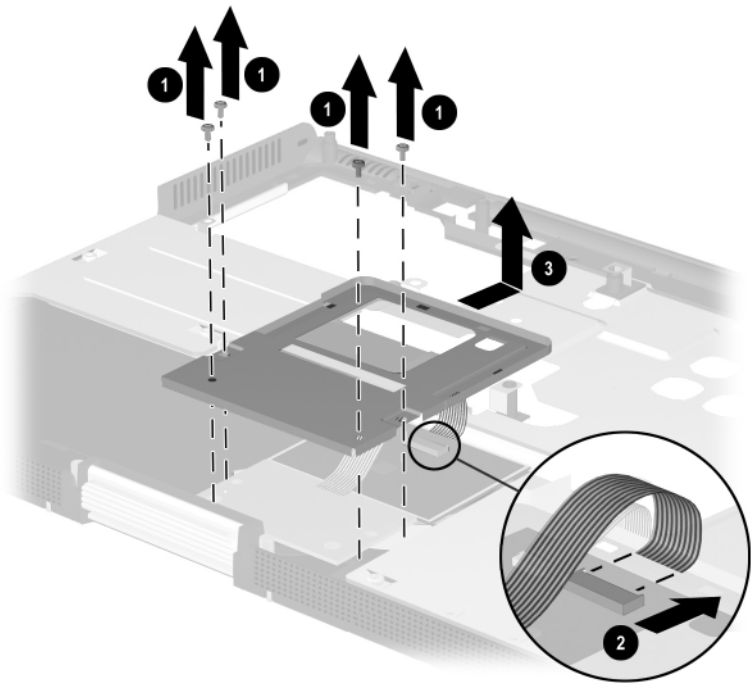


Figure 5-27. Removing the TouchPad

6. Remove the TouchPad ❶ and the TouchButton board ❷ from the top cover (Figure 5-28).



The TouchPad cables are part of the TouchButton board.

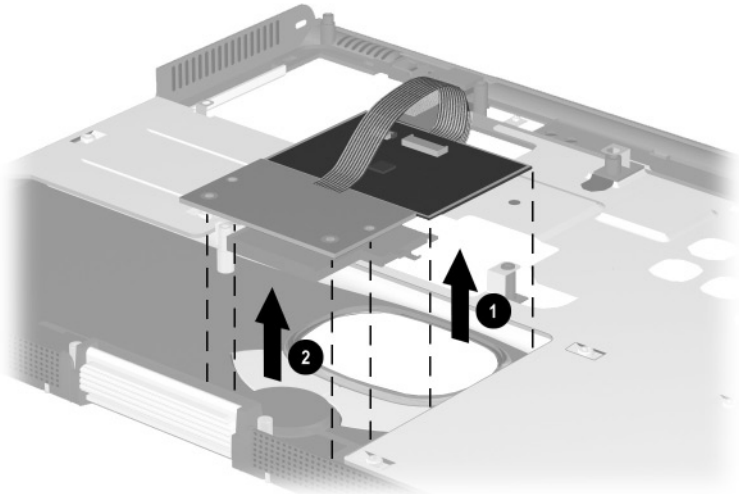


Figure 5-28. Removing the TouchPad and the TouchButton Board

Reverse the above procedure to install the TouchPad and the TouchButton board.

5.15 Fan

Fan Spare Part Number Information

Fan

322499-001

1. Prepare the computer for disassembly (Section 5.3) and remove the following components:
 - a. LED cover (Section 5.8)
 - b. Keyboard and shield (Section 5.9)
 - c. Display (Section 5.10)
 - d. Top cover (Section 5.11)

2. Disconnect the fan cable from the system board ❶ (Figure 5-29).
3. Loosen the four PM2.0 × 9.0 shoulder screws ❷ that secure the fan to the processor mounting bracket.



These screws are secured to the fan and should not be removed.

4. Lift the fan straight up to remove it from the base enclosure ❸.

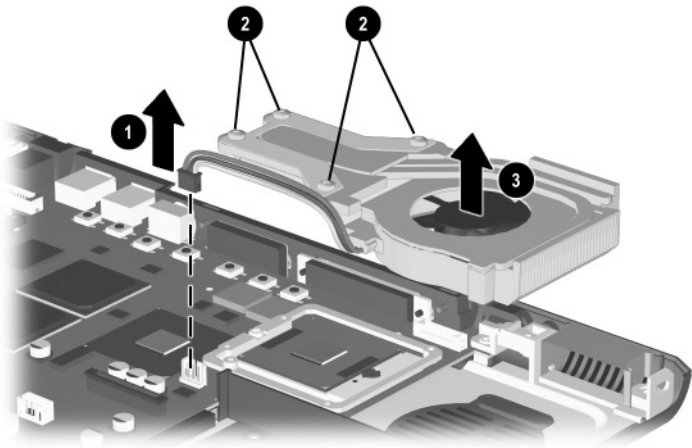


Figure 5-29. Removing the Fan

Reverse the above procedure to install the fan.

5.16 Processor

Processors Spare Part Number Information

Intel Mobile Pentium 4 with SpeedStep technology	
2.4-GHz processor	322507-001
2.2-GHz processor	308420-001
2.0-GHz processor	305075-001
1.9-GHz processor	305074-001
1.8-GHz processor	285295-001
1.7-GHz processor	285294-001
1.6-GHz processor	285293-001
1.5-GHz processor	285292-001
1.4-GHz processor	285291-001
Intel Mobile Pentium 4 (non-SpeedStep technology)	
2.0-GHz processor	322506-001
1.8-GHz processor	322505-001
1.6-GHz processor	306704-001
1.5-GHz processor	306703-001
Thermal pad	314626-001



CAUTION: Before removing the processor, make special note of the orientation of the printing on the processor. The gold triangle should be in the lower right corner when installing the processor. The processor must be installed in the same orientation in which it was removed.

1. Prepare the computer for disassembly (Section 5.3) and remove the following components:
 - a. LED cover (Section 5.8)
 - b. Keyboard and shield (Section 5.9)
 - c. Display (Section 5.10)
 - d. Top cover (Section 5.11)
 - e. Fan (Section 5.15)

2. Use a flat-bladed tool to turn the processor locking screw ❶ one-half turn counterclockwise (Figure 5-30).
3. Lift the processor straight up and remove it ❷.



Make sure the gold triangle ❸ is in the lower right corner when installing the processor.

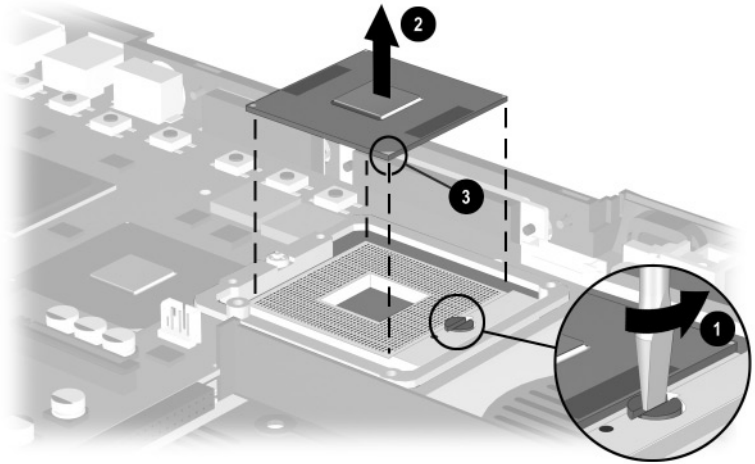


Figure 5-30. Removing the Processor

Reverse the above procedure to install the processor.

5.17 Disk Cell RTC Battery

Disk Cell RTC Battery Spare Part Number Information

Disk cell RTC battery

198718-001

1. Prepare the computer for disassembly (Section 5.3) and remove the following components:
 - a. LED cover (Section 5.8)
 - b. Keyboard and shield (Section 5.9)
 - c. Display (Section 5.10)
 - d. Top cover (Section 5.11)

2. Use a flat-bladed tool to release the RTC battery from its socket ❶ (Figure 5-31).
3. Remove the RTC battery ❷.

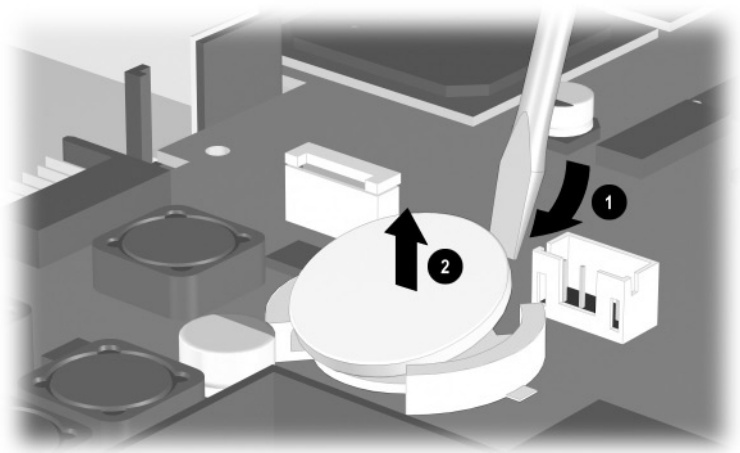


Figure 5-31. Removing the Disk Cell RTC Battery



When replacing an RTC battery, insert the battery with the “+” sign facing up.

5.18 System Board

System Boards Spare Part Number Information

With the ATI Mobile Radeon 9000 graphics controller for use only with the 90-watt AC adapter	
64-MB of video memory	322498-001
32-MB of video memory	322497-001
With the ATI Mobile Radeon 9000 graphics controller	
64-MB of video memory	310784-001
32-MB of video memory	310783-001
With the ATI P7 graphics controller	
64-MB of video memory	285254-001
32-MB of video memory	285253-001



When replacing the system board, ensure that the following components are removed from the old system board and installed on the new system board:

- Memory expansion boards (Section 5.5)
 - Mini PCI communications board (Section 5.6)
 - Processor (Section 5.16)
 - Disk cell RTC battery (Section 5.17)
 - Modem cable (Section 5.19)
-

1. Prepare the computer for disassembly (Section 5.3) and remove the following components:
 - a. LED cover (Section 5.8)
 - b. Keyboard and shield (Section 5.9)
 - c. Display (Section 5.10)
 - d. Top cover (Section 5.11)
 - e. Fan (Section 5.15)
2. Position the computer so the front faces forward.

3. Remove the two PM2.0 × 8.0 screws ❶ that secure the left ❷ and right ❸ display supports to the base enclosure (Figure 5-32).
4. Remove the left and right display supports from the base enclosure.

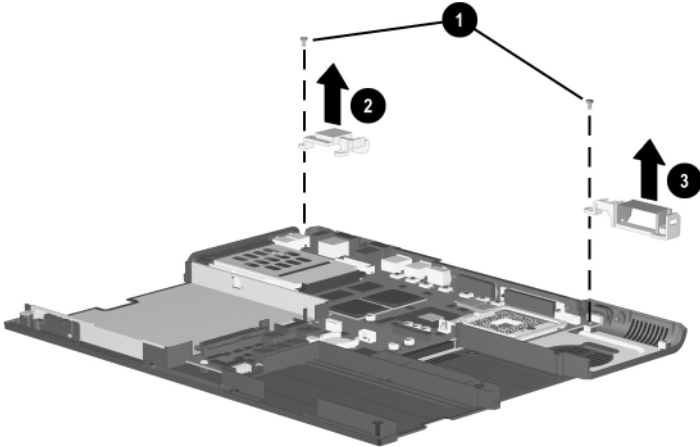


Figure 5-32. Removing the Display Supports



A plastic fan channel ❶ attaches to the right display support. The channel has two slots ❷ on either end that fit around two tabs ❸ on the display support. The fan channel is included in the Miscellaneous Plastics/Hardware Kit, spare part numbers 285261-001 and 286868-001 (Figure 5-33).

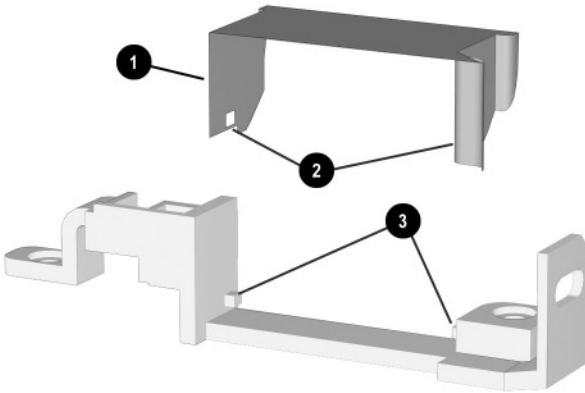


Figure 5-33. Replacing the Fan Channel on the Right Display Support

5. Remove the two PM2.0 × 5.5 screws ❶ that secure the system board to the base enclosure on either side of the MultiBay connector (Figure 5-34).
6. Remove the two PM2.0 × 8.0 screws ❷ that secure the system board to the base enclosure through the processor support bracket.

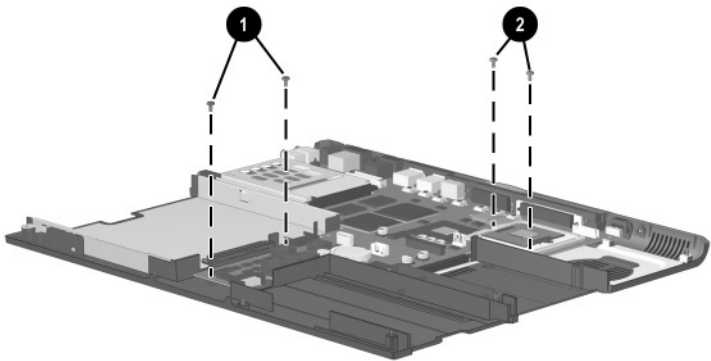


Figure 5-34. Removing the System Board Screws

7. Use the MultiBay connector ❶ to lift ❷ the front of the system board until the board rests at an angle (Figure 5-35).
8. Slide the system board forward at an angle ❸ and remove it from the base enclosure.
9. Remove the PC Card bezel ❹ from the system board.

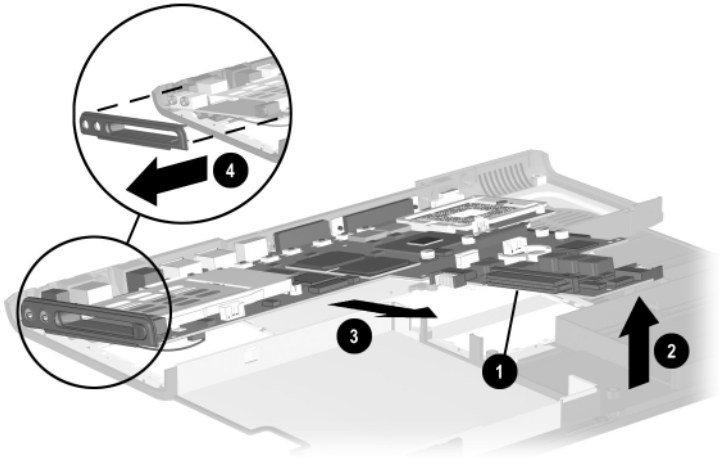


Figure 5-35. Removing the System Board

Reverse the above procedure to install the system board.

5.19 Modem Cable



The modem cable is included in the Miscellaneous Cable Kit, spare part number 285268-001.

1. Prepare the computer for disassembly (Section 5.3) and remove the following components:
 - a. LED cover (Section 5.8)
 - b. Keyboard and shield (Section 5.9)
 - c. Display (Section 5.10)
 - d. Top cover (Section 5.11)
 - e. Fan (Section 5.15)
 - f. System board (Section 5.18)
2. Turn the system board bottom side up with the rear panel facing forward.

3. If the modem is installed on the system board, disconnect the modem cable from the modem ❶ (Figure 5-36).
4. Disconnect the modem cable from the system board ❷.
5. Remove the modem cable.

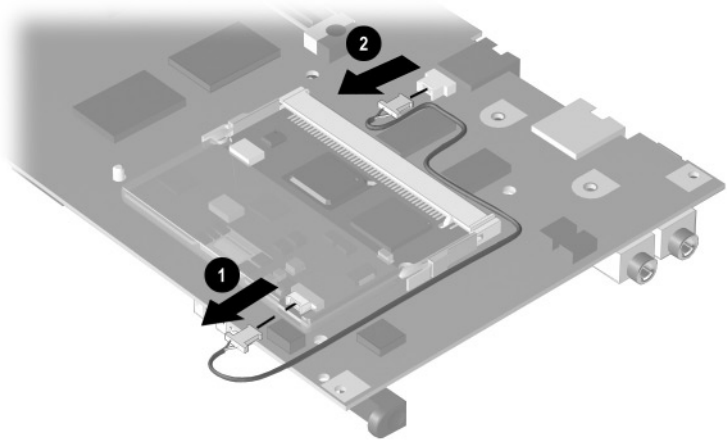


Figure 5-36. Removing the Modem Cable

When installing the modem cable, route the cable as shown in Figure 5-36.

6

Specifications

This chapter provides physical and performance specifications.

**Table 6-1
Computer**

Dimensions

Height	1.30 in	3.3 cm
Width	12.48 in	31.7 cm
Depth	10.10 in	25.0 cm

Weight (varies by configuration)

15.0-inch display, MultiBay device, 1 memory expansion board	6.40 lb	2.92 kg
14.1-inch display, MultiBay weight saver, 1 memory expansion board	5.45 lb	2.47 kg

Stand-alone power requirements

Nominal operating voltage	14.8 VDC
Average operating power	15.8 W
Peak operating power	38 W
Power in Suspend mode	< 800 mW
Power in Hibernation mode	< 100 mW

Table 6-1
Computer (Continued)

Temperature

Operating	50° to 95° F	10° to 35° C
Nonoperating	14° to 140° F	-10° to 60° C

Relative humidity (noncondensing)

Operating	10% to 90%
Nonoperating	5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature

Altitude (unpressurized)

Operating	0 to 10,000 ft	0 to 3,048 m
Nonoperating	0 to 30,000 ft	0 to 9,144 m

Shock

Operating	10 G, 11 ms, half-sine
Nonoperating	60 G, 11 ms, half-sine

Vibration

Operating	0.5 G zero-to-peak, 10 to 500 Hz, 0.25 oct/min sweep rate
Nonoperating	1.0 G zero-to-peak, 10 to 500 Hz, 0.5 oct/min sweep rate



Applicable product safety standards specify thermal limits for plastic surfaces. The computer operates well within this range of temperatures.

Table 6-2
15.0-inch UXGA, TFT Display

Dimensions		
Height	9.00 in	22.86 cm
Width	11.94 in	30.33 cm
Diagonal	15.0 in	38.10 cm
Number of colors	up to 16.8 million	
Contrast ratio	150:1	
Brightness	120+ nit typical	
Pixel resolution		
Pitch	0.264 × 0.264 mm	
Format	1600 × 1200	
Configuration	RGB vertical stripe	
Backlight	Edge lit	
Character display	80 × 25	
Total power consumption	4.20 W	

Table 6-3
15.0-inch SXGA+, TFT Display

Dimensions		
Height	9.00 in	22.86 cm
Width	11.94 in	30.33 cm
Diagonal	15.0 in	38.10 cm
Number of colors	up to 16.8 million	
Contrast ratio	150:1	
Brightness	120+ nit typical	
Pixel resolution		
Pitch	0.264 × 0.264 mm	
Format	1280 × 1024	
Configuration	RGB vertical stripe	
Backlight	Edge lit	
Character display	80 × 25	
Total power consumption	4.20 W	

Table 6-4
15.0-inch XGA, TFT Display

Dimensions

Height	9.00 in	22.86 cm
Width	11.94 in	30.33 cm
Diagonal	15.0 in	38.10 cm

Number of colors up to 16.8 million**Contrast ratio** 150:1**Brightness** 120+ nit typical**Pixel resolution**

Pitch	0.264 × 0.264 mm
Format	1024 × 768
Configuration	RGB vertical stripe

Backlight Edge lit**Character display** 80 × 25**Total power consumption** 4.20 W

Table 6-5
14.1-inch XGA, TFT Display

Dimensions		
Height	11.22 in	20.50 mm
Width	8.46 in	21.49 mm
Diagonal	14.1 in	35.81 mm
Number of colors	up to 16.8 million	
Contrast ratio	150:1	
Brightness	120+ nits typical	
Pixel resolution		
Pitch	0.264 × 0.264 mm	
Format	1024 × 768	
Configuration	RGB stripe	
Backlight	Edge lit	
Character display	80 × 25	
Total power consumption	4.2 W	

**Table 6-6
Hard Drives**

	60 GB	40 GB	30 GB	20 GB
User capacity per drive¹	60.0 GB	40.0 GB	30.0 GB	20.0 GB
Drive height	9.5 mm	9.5 mm	9.5 mm	9.5 mm
Drive width	70 mm	70 mm	70 mm	70 mm
Interface type	ATA-5	ATA-5	ATA-5	ATA-5
Seek times (typical read, including setting)				
Single track	3 ms	3 ms	3 ms	3 ms
Average	13 ms	13 ms	13 ms	13 ms
Full stroke	24 ms	24 ms	24 ms	24 ms
Logical blocks³	117,210,240	78,140,160	58,605,120	39,070,080
Logical configuration				
Cylinders	16,383	16,383	16,383	16,383
Heads	16	16	16	16
Sectors per track	63	63	63	63

¹1 GB = 1,073,741,824 bytes.

²System capability may differ.

³Actual drive specifications may differ slightly.

Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center for details.

**Table 6-6
Hard Drives (Continued)**

	60 GB	40 GB	30 GB	20 GB
Physical configuration				
Cylinders ³	22,784	22,784	25,800	22,784
Heads	6	4	2	4
Sectors per track ³	293 to 560	293 to 560	398 to 731	293 to 560
Bytes per sector	512	512	512	512
Buffer size³	2 MB	2 MB	512 KB	512 KB
Disk rotational speed	4200 rpm	4200 rpm	4200 rpm	4200 rpm
Transfer rate				
Interface max (MB/s) ²	66.6	66.6	100	66.6
Media (MB/s) ³	109 to 203	109 to 203	155 to 256	109 to 203

¹1 GB = 1,073,741,824 bytes.

²System capability may differ.

³Actual drive specifications may differ slightly.

Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center for details.

Table 6-7
Diskette Drive

Diskette size	3.5 in
Light	On system
Height	0.5 in (12.7 mm)
Bytes per sector	512
Sectors per track	
High density	18 (1.44 MB)
Low density	9
Tracks per side	
High density	
Low density	80
	80
Read/write heads	2
Average seek times	
Track-to-track (high/low)	3 to 6 ms
Average (high/low)	95 to 174 ms
Settling time	15 ms
Latency average	100 ms

Table 6-8
CD-ROM Drive

Applicable disk	CD-ROM (Mode 1, 2, and 3) CD-XA ready (Mode 2, Form 1 and 2) CD-I ready (Mode 2, Form 1 and 2) CD-R (read only) CD Plus Photo CD (single/multisession) CD-Extra Video CD CD-WO (fixed packets only) CD-Bridge	
Center hole diameter	0.59 in	1.5 cm
Disk diameter	12 cm, 8 cm	
Disk thickness	0.047 in	1.2 mm
Track pitch	1.6 μ m	
Access time		
Random	< 150 ms	
Full stroke	< 300 ms	
Cache buffer	128 KB	
Data transfer rate		
Sustained, 16X	150 KB/s at 1X	
Variable	1500 to 3600 KB/s (10X to 24X)	
Normal PIO Mode 4 (single burst)	16.66 KB/s	
Startup time	< 8 seconds	
Stop time	< 4 seconds	

Table 6-9
DVD-ROM Drive

Applicable disk	DVD-5, DVD-9, DVD-10 CD-ROM (Mode 1 and 2) CD Digital Audio CD-XA ready (Mode 2, Form 1 and 2) CD-I ready (Mode 2, Form 1 and 2) CD-R (read only) CD Plus Photo CD (single/multisession) CD-Bridge	
Center hole diameter	0.59 in	1.5 cm
Disk diameter		12 cm, 8 cm
Disk thickness	0.047 in	1.2 mm
Track pitch	0.74 μ m	
Access time		
Random	< 150 ms	
Full stroke	< 225 ms	
Audio output level	Line-out, 0.7 Vrms	
Cache buffer	512 KB	
Data transfer rate		
Max 24X CD	3600 KB/s (150 KB/s at 1X CD rate)	
Max 8X DVD	10,800 KB/s (1352 KB/s at 1X DVD rate)	
Normal IO Mode 4 (single burst)	16.6 MB/s	
Startup time	< 12 seconds	
Stop time	< 3 seconds	

Table 6-10
CD-RW Drive

Center hole diameter	0.59 in	0.39 cm
Disk diameter		12 cm, 8 cm
Disk thickness	0.47 in	1.19 cm
Track pitch	0.74 μ m	
Access time		
Random	< 150 ms	
Full stroke	< 225 ms	
Audio output level	Line-out, 0.7 Vrms	
Cache buffer	128 KB	
Data transfer rate		
Sustained, 16X	150 KB/s	
Sustained, 4X CD-RW	5,520 KB/s	
Normal PIO Mode 4 (single burst)	16.6 MB/s	
Startup time	< 15 seconds	
Stop time	< 6 seconds	

Table 6-11
External AC Adapter


Weight	0.45 lb	0.21 kg
Power supply		
Rated input voltage	90 to 264 VAC (auto-switching)	
Rated input current	< 60 W	
Rated frequency	50 to 60 Hz	

Table 6-12
8-cell, Li ion Battery Pack

Dimensions		
Height	0.82 in	21 mm
Width	5.67 in	144 mm
Depth	3.03 in	77 mm
Weight	0.94 lb	0.43 kg
Energy		
4.0 Amp hour		
Voltage	14.4 V	
Amp-hour capacity	4.0 Ah	
Watt-hour capacity	57.6 Wh	
3.6 Amp hour		
Voltage	14.4 V	
Amp-hour capacity	3.6 Ah	
Watt-hour capacity	51.8 Wh	
Temperature		
Operating	50 to 104° F	10 to 40° C
Nonoperating	-4 to 104° F	-20 to 60° C


Table 6-13
System DMA

Hardware DMA	System Function
DMA0	Available for audio
DMA1	Entertainment audio (default; alternate = DMA0, DMA3, none)
DMA2	Diskette drive
DMA3	ECP parallel port LPT1 (default; alternate = DMA0, none)
DMA4	DMA controller cascading (not available)
DMA5	Available for PC Card
DMA6	Not assigned
DMA7	Not assigned

 PC Card controller can use DMA 1, 2, or 5.

**Table 6-14
System Interrupts**

Hardware IRQ	System Function
IRQ0	System timer
IRQ1	Keyboard controller
IRQ2	Cascaded
IRQ3	COM2
IRQ4	COM1
IRQ5	Audio (default)*
IRQ6	Diskette drive
IRQ7	Parallel port
IRQ8	Real time clock (RTC)
IRQ9	Infrared
IRQ10	System use
IRQ11	System use
IRQ12	Internal point stick or external mouse
IRQ13	Coprocessor (not available to any peripheral)
IRQ14	IDE interface (hard drive and optical drive)
IRQ15	System use

 PC Cards may assert IRQ3, IRQ4, IRQ5, IRQ7, IRQ9, IRQ10, IRQ11, or IRQ15. Either the infrared or the serial port may assert IRQ3 or IRQ4.

*Default configuration; audio possible configurations are IRQ5, IRQ7, IRQ9, IRQ10, or none.

Table 6-15
System I/O Addresses

I/O Address (hex)	System Function (shipping configuration)
000 - 00F	DMA controller no. 1
010 - 01F	Unused
020 - 021	Interrupt controller no. 1
022 - 024	Opti chipset configuration registers
025 - 03F	Unused
02E - 02F	87334 "Super I/O" configuration for CPU
040 - 05F	Counter/timer registers
044 - 05F	Unused
060	Keyboard controller
061	Port B
062 - 063	Unused
064	Keyboard controller
065 - 06F	Unused
070 - 071	NMI enable/real time clock
072 - 07F	Unused
080 - 08F	DMA page registers
090 - 091	Unused
092	Port A
093 - 09F	Unused
0A0 - 0A1	Interrupt controller no. 2

Table 6-15
System I/O Addresses (*Continued*)

I/O Address (hex)	System Function (shipping configuration)
0A2 - 0BF	Unused
0C0 - 0DF	DMA controller no. 2
0E0 - 0EF	Unused
0F0 - 0F1	Coprocessor busy clear/reset
0F2 - 0FF	Unused
100 - 16F	Unused
170 - 177	Secondary fixed disk controller
178 - 1EF	Unused
1F0 - 1F7	Primary fixed disk controller
1F8 - 200	Unused
201	Joystick (decoded in ESS1688)
202 - 21F	Unused
220 - 22F	Entertainment audio
230 - 26D	Unused
26E - 26	Unused
278 - 27F	Unused
280 - 2AB	Unused
2A0 - 2A7	Unused
2A8 - 2E7	Unused
2E8 - 2EF	Reserved serial port

Table 6-15
System I/O Addresses (*Continued*)

I/O Address (hex)	System Function (shipping configuration)
2F0 - 2F7	Unused
2F8 - 2FF	Infrared port
300 - 31F	Unused
320 - 36F	Unused
370 - 377	Secondary diskette drive controller
378 - 37F	Parallel port (LPT1/default)
380 - 387	Unused
388 - 38B	FM synthesizer—OPL3
38C - 3AF	Unused
3B0 - 3BB	VGA
3BC - 3BF	Reserved (parallel port/no EPP support)
3C0 - 3DF	VGA
3E0 - 3E1	PC Card controller in CPU
3E2 - 3E3	Unused
3E8 - 3EF	Internal modem
3F0 - 3F7	“A” diskette controller
3F8 - 3FF	Serial port (COM1/default)
CF8 - CFB	PCI configuration index register (PCIDIVO-1)
CFC - CFF	PCI configuration data register (PCIDIVO-1)

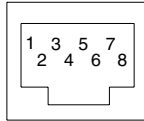
Table 6-16
System Memory Map

Size	Memory Address	System Function
640 KB	00000000-0009FFFF	Base memory
128 KB	000A0000-000BFFFF	Video memory
48 KB	000C0000-000CBFFF	Video BIOS
160 KB	000C8000-000E7FFF	Unused
64 KB	000E8000-000FFFFFF	System BIOS
15 MB	00100000-00FFFFFF	Extended memory
58 MB	01000000-047FFFFFF	Super extended memory
58 MB	04800000-07FFFFFF	Unused
2 MB	08000000-080FFFFFF	Video memory (direct access)
4 GB	08200000-FFFFFF	Unused
64 KB	FFFF0000-FFFFFFFF	System BIOS

A

Connector Pin Assignments

Table A-1
RJ-45 Network Interface



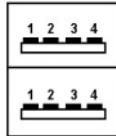
Pin	Signal	Pin	Signal
1	Transmit +	5	Unused
2	Transmit –	6	Receive –
3	Receive +	7	Unused
4	Unused	8	Unused

Table A-2
RJ-11 Modem



Pin	Signal	Pin	Signal
1	Unused	4	Unused
2	Tip	5	Unused
3	Ring	6	Unused

Table A-3
Universal Serial Bus



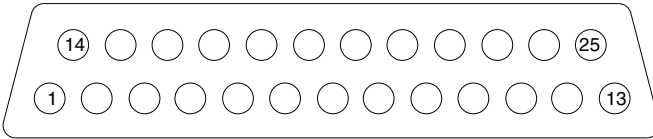
Pin	Signal	Pin	Signal
1	+5 VDC	3	Data +
2	Data -	4	Ground

Table A-4
S-Video



Pin	Signal	Pin	Signal
1	Ground (Y)	3	Y-Luminance (Intensity)
2	Ground (C)	4	C-Chrominance (Color)

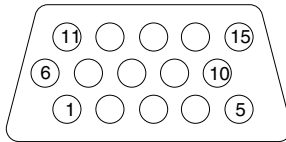
**Table A-5
Parallel**



Pin	Signal	Pin	Signal
1	Strobe*	10	Acknowledge*
2	Data bit 0	11	Busy
3	Data bit 1	12	Paper out
4	Data bit 2	13	Select
5	Data bit 3	14	Auto line feed*
6	Data bit 4	15	Error*
7	Data bit 5	16	Initialize printer*
8	Data bit 6	17	Select in*
9	Data bit 7	18-25	Signal ground

*Signal is active low.

Table A-6
External Monitor



Pin	Signal	Pin	Signal
1	Red analog	9	+5 VDC
2	Green analog	10	Ground
3	Blue analog	11	Monitor detect
4	Not connected	12	DDC 2B data
5	Ground	13	Horizontal sync
6	Ground analog	14	Vertical sync
7	Ground analog	15	DDC 2B clock
8	Ground analog		

Table A-7
Stereo Speaker/Headphone



Pin	Signal	Pin	Signal
1	Audio out	2	Ground

Table A-8
Microphone



Pin	Signal	Pin	Signal
1	Audio in	2	Ground

Power Cord Set Requirements

3-Conductor Power Cord Set

The computer's wide range input feature permits it to operate from any line voltage from 100 to 120 or 220 to 240 volts AC.

The power cord set received with the computer meets the requirements for use in the country where the equipment is purchased.

Power cord sets for use in other countries must meet the requirements of the country where the computer is used. For more information on power cord set requirements, contact a Compaq authorized reseller or service provider.

General Requirements

The requirements listed below are applicable to all countries:

- The length of the power cord set must be at least 5.00 feet (1.5 m) and a maximum of 6.50 feet (2.0 m).
- All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country where the power cord set will be used.
- The power cord set must have a minimum current capacity of 10 amps and a nominal voltage rating of 125 or 250 volts AC, as required by each country's power system.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector, for mating with the appliance inlet on the back of the computer.

Country-Specific Requirements

3-Conductor Power Cord Set Requirements

Country	Accredited Agency	Applicable Note Number
Australia	EANSW	1
Austria	OVE	1
Belgium	CEBC	1
Canada	CSA	2
Denmark	DEMKO	1
Finland	FIMKO	1
France	UTE	1
Germany	VDE	1
Italy	IMQ	1
Japan	METI	3
The Netherlands	KEMA	1
Norway	NEMKO	1
Sweden	SEMKO	1
Switzerland	SEV	1

3-Conductor Power Cord Set Requirements

Country	Accredited Agency	Applicable Note Number
United Kingdom	BSI	1
United States	UL	2

Notes


1. The flexible cord must be <HAR> Type HO5VV-F, 3-conductor, 1.0 mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country where it will be used.
 2. The flexible cord must be Type SPT-3 or equivalent, No. 18 AWG, 3-conductor. The wall plug must be a two-pole grounding type with a NEMA 5-15P (15 A, 125 V) or NEMA 6-15P (15 A, 250 V) configuration.
 3. The appliance coupler, flexible cord, and wall plug must bear a "T" mark and registration number in accordance with the Japanese Dentori Law. The flexible cord must be Type VCT or VCTF, 3-conductor, 1.00 mm² conductor size. The wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (7 A, 125 V) configuration.
-

C

Screw Listing

This appendix provides specification and reference information for the screws used in the computer. All screws listed in this appendix are available in the Miscellaneous Screw Kit, spare part number 285290-001.

Table C-1
Phillips M3.0 x 4.0 Screw

	Color	Qty.	Length	Thread	Head Width
	Black	3	4.0 mm	3.0 mm	5.0 mm

Where used:

One screw that secures the hard drive to the computer
(documented in Section 5.3)

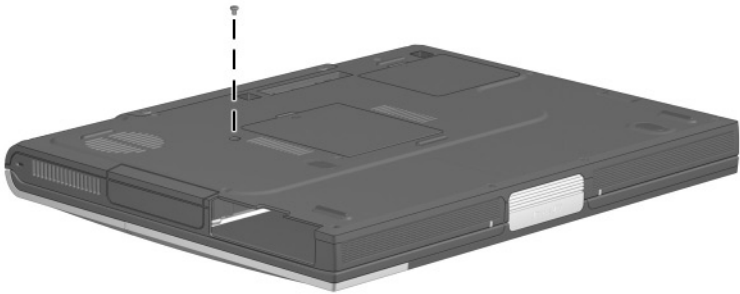



Figure C-1. Phillips M3.0 x 4.0 Screw Location

Table C-1
Phillips M3.0 × 4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	3	4.0 mm	3.0 mm	5.0 mm

Where used:

Two screws that secure the hard drive bezel to the hard drive (documented in Section 5.3)

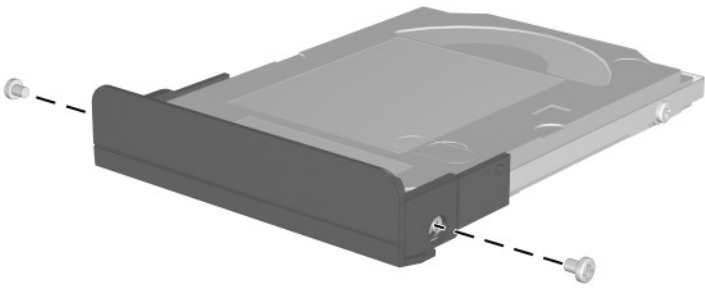



Figure C-2. Phillips M3.0 × 4.0 Screw Locations

Table C-2
Phillips M2.0 × 5.5 Screw

	Color	Qty.	Length	Thread	Head Width
	Silver	2	5.5 mm	2.0 mm	4.0 mm

Where used:

Two screws that secure the connector cover to the computer
(documented in Section 5.7)

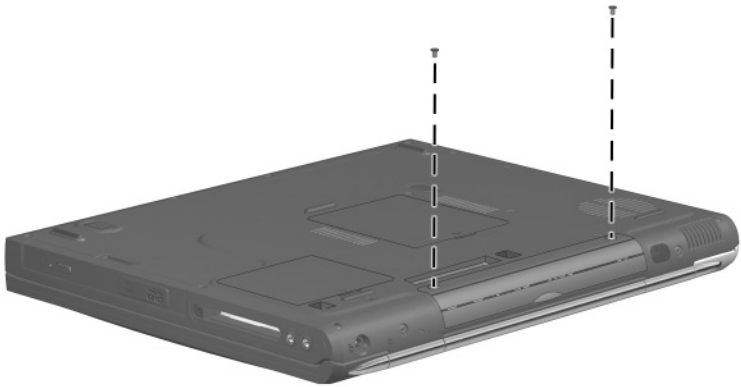



Figure C-3. Phillips M2.0 × 5.5 Screw Locations

Table C-2
Phillips M2.0 × 5.5 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	2	5.5 mm	2.0 mm	4.0 mm

Where used:

Two screws that secure the system board to the base enclosure on each side of the MultiBay connector (documented in Section 5.18)

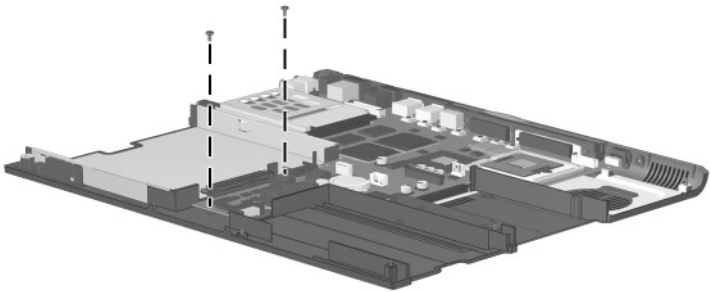



Figure C-4. Phillips M2.0 × 5.5 Screw Locations

Table C-3
Phillips M2.0 × 10.0 Screw

	Color	Qty.	Length	Thread	Head Width
	Black	4	10.0 mm	2.0 mm	4.0 mm

Where used:

Two screws that secure the LED cover to the computer (documented in Section 5.8)

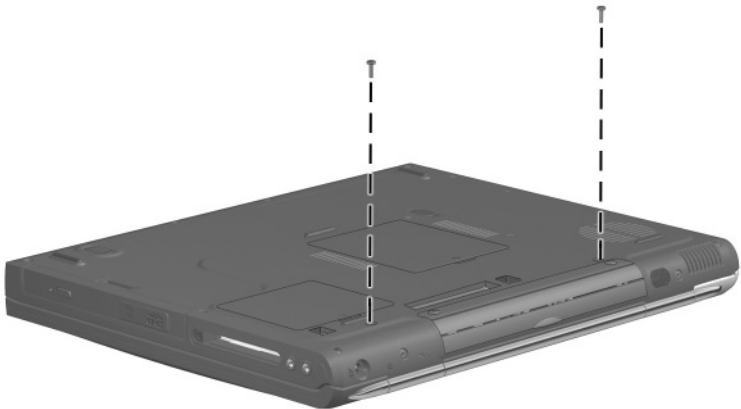



Figure C-5. Phillips M2.0 × 10.0 Screw Locations

Table C-3
Phillips M2.0 x 10.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	4	10.0 mm	2.0 mm	4.0 mm

Where used:

Two screws that secure the display hinge covers and display assembly to the computer (documented in Section 5.10)

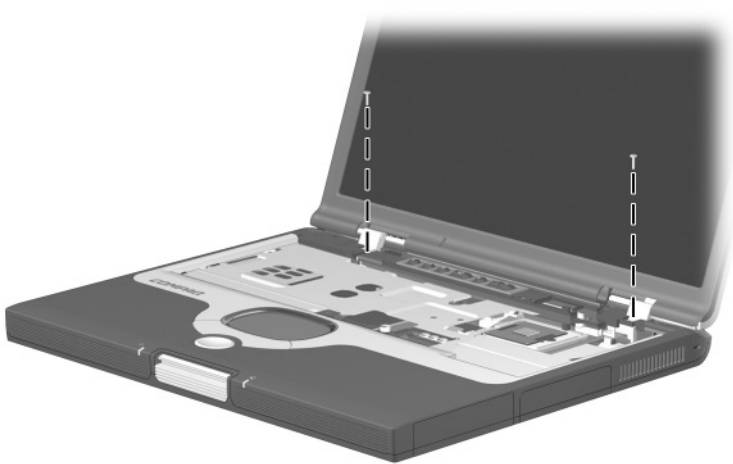



Figure C-6. Phillips M2.0 x 10.0 Screw Locations

Table C-4
Phillips M2.0 × 4.0 Screw

	Color	Qty.	Length	Thread	Head Width
	Gold	13	4.0 mm	2.0 mm	4.0 mm


Where used:

Two screws that secure the keyboard shield to the computer
(documented in Section 5.9)



Figure C-7. Phillips M2.0 × 4.0 Screw Locations

Table C-4
Phillips M2.0 × 4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Gold	13	4.0 mm	2.0 mm	4.0 mm


Where used:

One screw that secures the top cover to the base enclosure in the hard drive bay (documented in Section 5.11)



Figure C-8. Phillips M2.0 × 4.0 Screw Locations

Table C-4
Phillips M2.0 × 4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Gold	13	4.0 mm	2.0 mm	4.0 mm

Where used:

- ❶ Two screws that secure the top cover to the base enclosure near the fan assembly (documented in Section 5.11)
- ❷ Two screws that secure the top cover to the base enclosure through the rear panel (documented in Section 5.11)

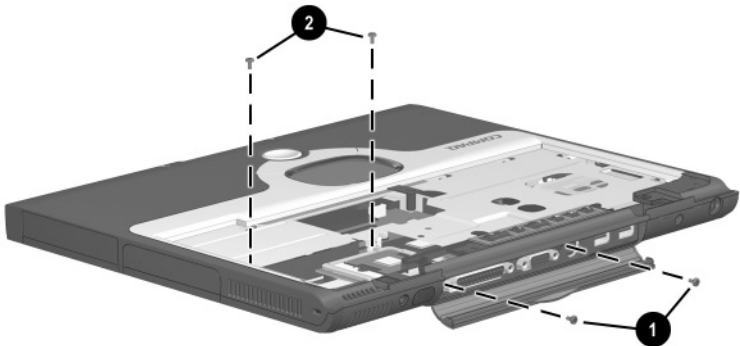



Figure C-9. Phillips M2.0 × 4.0 Screw Locations

Table C-4
Phillips M2.0 × 4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Gold	13	4.0 mm	2.0 mm	4.0 mm

Where used:

One screw that secures the speaker assembly to the top cover (documented in Section 5.12)

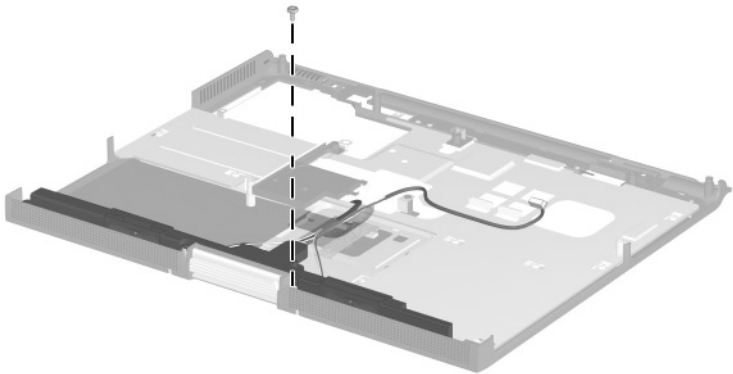



Figure C-10. Phillips M2.0 × 4.0 Screw Locations

Table C-4
Phillips M2.0 × 4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Gold	13	4.0 mm	2.0 mm	4.0 mm

Where used:

Two screws that secure the display release assembly to the top cover (documented in Section 5.13)

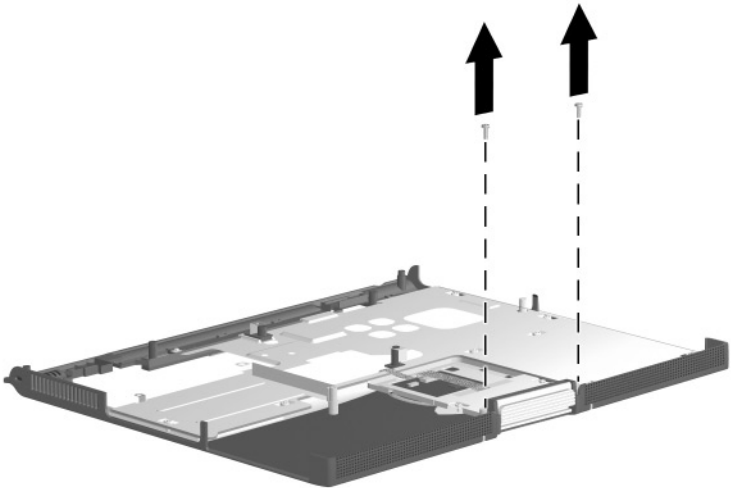



Figure C-11. Phillips M2.0 × 4.0 Screw Locations

Table C-4
Phillips M2.0 × 4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Gold	13	4.0 mm	2.0 mm	4.0 mm

Where used:

Four screws that secure the TouchPad bracket to the top cover (documented in Section 5.14)

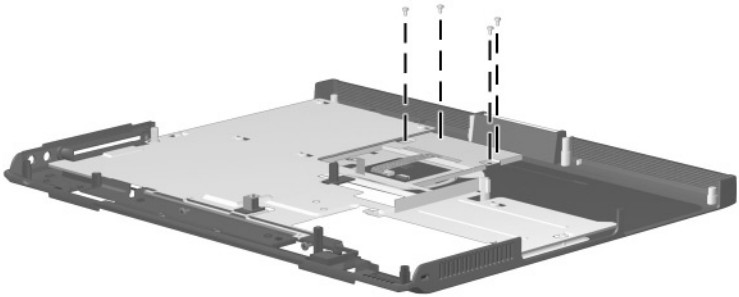



Figure C-12. Phillips M2.0 × 4.0 Screw Locations

Table C-5
Phillips M2.5 × 9.0 Screw

	Color	Qty.	Length	Thread	Head Width
	Black	2	9.0 mm	2.5 mm	4.0 mm

Where used:

Two screws that secure the display assembly to the computer through the rear panel (documented in Section 5.10)

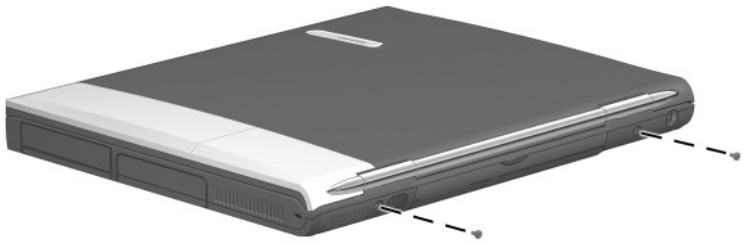



Figure C-13. Phillips M2.5 × 9.0 Screw Locations

Table C-6
Phillips M2.0 × 8.0 Screw

	Color	Qty.	Length	Thread	Head Width
	Black	14	8.0 mm	2.0 mm	4.0 mm

Where used:

Nine screws that secure the top cover to the base enclosure through the bottom of the computer (documented in Section 5.11)

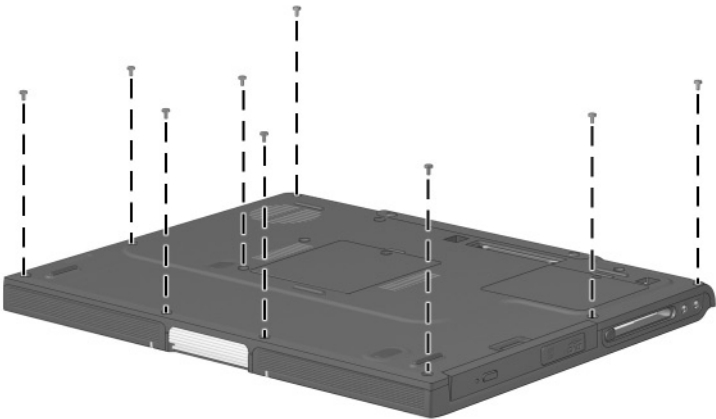



Figure C-14. Phillips M2.0 × 8.0 Screw Locations

Table C-6
Phillips M2.0 × 8.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	14	8.0 mm	2.0 mm	4.0 mm

Where used:

Two screws that secure the top cover to the base enclosure
(documented in Section 5.11)

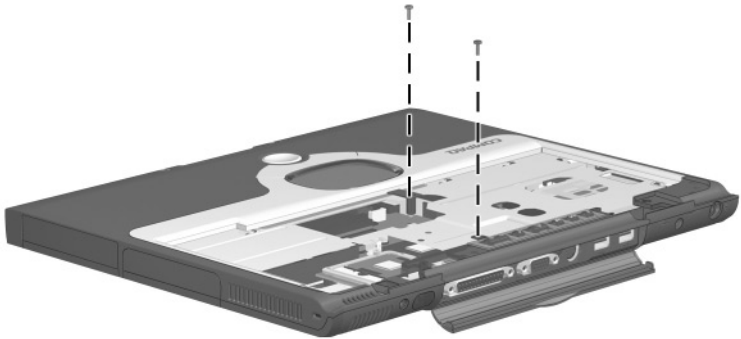



Figure C-15. Phillips M2.0 × 8.0 Screw Locations

Table C-6
Phillips M2.0 × 8.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	14	8.0 mm	2.0 mm	4.0 mm

Where used:

Two screws that secure the left and right display supports to the base enclosure (documented in Section 5.18)

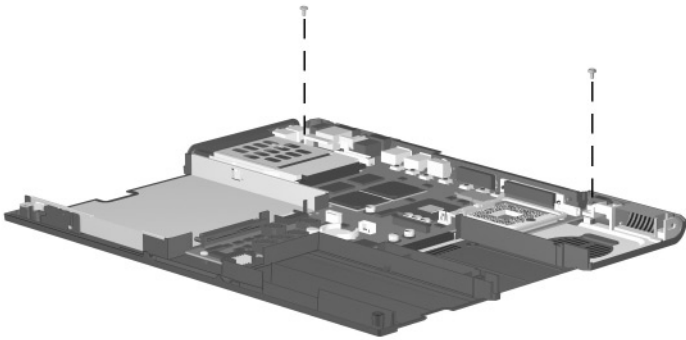



Figure C-16. Phillips M2.0 × 8.0 Screw Locations

Table C-6
Phillips M2.0 × 8.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	14	8.0 mm	2.0 mm	4.0 mm

Where used:

Two screws that secure the system board to the base enclosure through the processor support bracket (documented in Section 5.18)

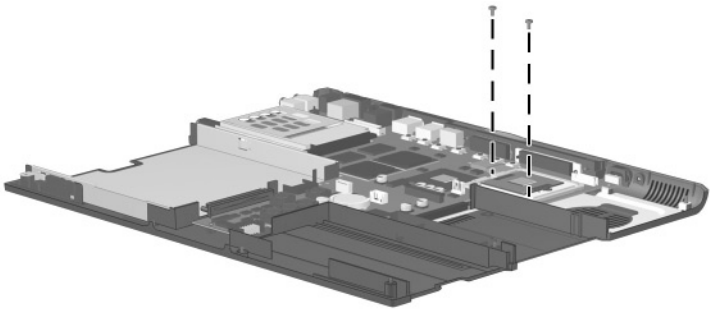


Figure C-17. Phillips M2.0 × 8.0 Screw Locations

Index

A

- AC adapter
 - specifications 6–13
- audio troubleshooting 2–25

B

- base enclosure, spare part numbers 3–15
- battery bay 1–46, 1–54
- battery bezel
 - removal 5–5
 - spare part numbers 3–13, 5–5
- battery light 1–46
- battery pack
 - removal 5–4
 - spare part numbers 3–13
- battery power light 1–52
- battery release latch 1–54, 5–4
- battery specifications 6–13
- battery, real time clock (RTC)
 - removal 5–42
 - spare part number 3–11, 5–42
- bottom components 1–53

C

- cables, service considerations 4–2
- caps lock light 1–52

CD-ROM drive

- OS loading problems 2–24
- specifications 6–10

CD-RW drive, specifications 6–12

Compaq Diagnostics 2–1, 2–7 components

- bottom 1–53
- front 1–45
- keyboard 1–49
- left side 1–47
- real panel 1–47
- right side 1–45
- top 1–51

Computer Setup

- Advanced Menu 2–5
- File Menu 2–3
- overview 2–1
- Security Menu 2–4

computer specifications 6–1

connector cover

- illustrated 3–16
- location 1–53
- removal 5–15

connector pin assignments

- external monitor connector A–5
- headphone jack A–6
- microphone jack A–6
- modem connector A–2

- monitor connector A-5
- network connector A-1
- parallel connector A-4
- RJ-11 jack A-2
- RJ-45 jack A-1
- speaker jack A-6
- S-video A-3
- USB connector A-2

connectors, service

- considerations 4-2

cursor control keys 1-50

D

DC power jack 1-48

design overview 1-55

diagnostics

- configuration information 2-7
- test information 2-8

digital audio button 1-52

disassembly sequence chart 5-2

diskette drive

- OS loading problems 2-23
- spare part number 3-13, 3-19
- specifications 6-9

display

- illustrated 3-2
- removal 5-22
- spare part numbers 3-3, 5-22
- specifications 6-3, 6-4, 6-5, 6-6

- display lid switch 1-51
- display release assembly
 - illustrated 3-16
 - removal 5-33
- display release latch 1-46
- display support
 - illustrated 3-16
 - removal 5-45
- DMA specifications 6-14
- docking connector 1-53
- docking connector cover,
 - illustrated 3-16
- docking station,
 - troubleshooting 2-18
- drive indicator light 1-52
- drives, preventing damage 4-3
- DVD-ROM drive
 - OS loading problems 2-24
 - specifications 6-11

E

Easy Access Buttons 1-51

EasyScroll 1-52

electrostatic discharge 4-4, 4-7

embedded numeric keypad 1-50

external monitor connector

- location 1-48
- pin assignments A-5

F

fan

- removal 5-38
- spare part number 3-11,

- fan channel
 - illustrated 3–16
 - removal 5–46
- features 1–41
- feet
 - illustrated 3–16
 - locations 5–9
- Fn key 1–50
- front components 1–45
- function keys 1–50
- G**
- grounding equipment and methods 4–6
- H**
- hard drive
 - OS loading problems 2–20
 - removal 5–7, 5–8
 - spare part numbers 3–9, 3–19
 - specifications 6–7
- hard drive bay 1–46, 1–54
- hard drive bezel
 - removal 5–8
 - spare part numbers 3–9
- hard drive retention screw 1–54
- headphone jack
 - location 1–48
 - pin assignments A–6
- hinge covers
 - illustrated 3–16
 - removal 5–25
- I**
- I/O address specifications 6–16
- illustrated parts catalog 3–1
- infrared port 1–47
- interrupt specifications 6–15
- K**
- keyboard
 - illustrated 3–2
 - removal 5–18
 - spare part numbers 3–7, 5–18
 - troubleshooting 2–28
- keyboard components 1–49
- keyboard shield
 - illustrated 3–16
 - removal 5–20
- L**
- LED cover
 - illustrated 3–2
 - removal 5–16
 - spare part number 3–5, 5–16
- left side components 1–47
- Logo Kit, spare part number 3–20
- M**
- mass storage devices 3–18
- memory expansion board
 - replacement 5–9
 - spare part numbers 3–15
- memory expansion compartment 1–54

- memory expansion
 - compartment cover
 - illustrated 3–16
 - removal 5–10
 - memory map specifications 6–19
 - microphone 1–52
 - microphone jack
 - location 1–48
 - pin assignments A–6
 - mini PCI board
 - removal 5–12
 - spare part numbers 3–15
 - mini PCI compartment 1–54
 - mini PCI compartment cover
 - illustrated 3–16
 - removal 5–13
 - Miscellaneous Cable Kit
 - components 3–11
 - spare part number 3–11
 - Miscellaneous Plastics/Hardware Kit
 - components 3–16, 3–17
 - spare part numbers 3–5, 3–17
 - models 1–2
 - modem
 - removal 5–12
 - spare part numbers 3–15
 - troubleshooting 2–30
 - modem cable
 - removal 5–49
 - spare part number 3–11
 - modem connector
 - location 1–48
 - pin assignments A–2
 - monitor connector
 - location 1–48
 - pin assignments A–5
 - MultiBay 1–48, 1–54
 - MultiBay battery pack, spare part number 3–13
 - MultiBay device
 - removal 5–6
 - spare part numbers 3–13
 - MultiBay release latch 1–54, 5–6
 - MultiBay weight saver 3–16
- N**
- network connector
 - location 1–48
 - pin assignment A–1
 - network, troubleshooting 2–30
 - nonfunctioning device,
 - troubleshooting 2–18, 2–27
 - num lock key 1–50
 - num lock light 1–51
 - numeric keypad 1–50
- O**
- operating system loading,
 - troubleshooting 2–19
 - optical drive, spare part numbers 3–13, 3–19
- P**
- packing precautions 4–4
 - parallel connector
 - location 1–47
 - pin assignments A–4
 - parts catalog 3–1
 - password, clearing 1–43

- PC Card bezel
 - illustrated 3–16
 - removal 5–48
- PC Card eject button 1–48
- PC Card slot 1–48
- PC Card slot space saver 3–16
- plastic parts 4–2
- pointing device,
 - troubleshooting 2–29
- port replicators, spare part numbers 3–20
- power button 1–52
- power cord, spare part numbers 3–20, 3–21
- power light 1–51
- power management features 1–44
- power, troubleshooting 2–12
- power/Standby light 1–46, 1–52
- processor
 - removal 5–40
 - spare part numbers 3–11, 5–40
- R**
- real time clock (RTC) battery
 - removal 5–42
 - spare part number 3–11, 5–42
- rear panel components 1–47
- removal and replacement
 - preliminaries 4–1
 - procedures 5–1
- right side components 1–45
- RJ-11 jack
 - location 1–48
 - pin assignments A–2
- RJ-45 jack
 - location 1–48
 - pin assignments A–1
- RTC battery
 - removal 5–42
 - spare part number 3–11, 5–42
- S**
- Screw Kit, spare part number 3–21
- security cable slot 1–46
- serial number 1–54, 3–1, 5–2
- service considerations 4–2
- speaker assembly
 - removal 5–31
 - spare part number 3–11
- speaker jack
 - location 1–48
 - pin assignments A–6
- speakers 1–46
- specifications
 - AC adapter 6–13
 - battery 6–13
 - CD-ROM drive 6–10
 - CD-RW drive 6–12
 - computer 6–1
 - diskette drive 6–9
 - display 6–3, 6–4, 6–5, 6–6
 - DMA 6–14
 - DVD-ROM drive 6–11
 - hard drive 6–7

- I/O addresses 6–16
- interrupts 6–15
- memory map 6–19
- static shielding materials 4–8
- stereo speaker jack
 - location 1–48
 - pin assignments A–6
- S-Video connector
 - location 1–48
 - pin assignments A–3
- system board
 - removal 5–44
 - spare part numbers 3–13, 5–44
- system memory map 6–19

T

- tools required 4–1
- top components 1–51
- top cover
 - removal 5–26
 - spare part numbers 3–9, 5–26
- TouchButton board
 - removal 5–35
 - spare part numbers 3–9, 5–35
- TouchPad
 - location 1–52
 - removal 5–35
 - spare part number 3–9, 5–35
- TouchPad bracket
 - illustrated 3–16
 - removal 5–36

- TouchPad buttons 1–52
- transporting precautions 4–4
- troubleshooting
 - audio 2–25
 - Compaq Diagnostics 2–7
 - Computer Setup 2–2
 - docking station 2–18
 - flowcharts 2–10
 - keyboard 2–28
 - modem 2–30
 - network 2–30
 - nonfunctioning device 2–18, 2–27
 - operating system loading 2–19
 - overview 2–1
 - pointing device 2–29
 - power 2–12
 - video 2–16

U

- universal serial bus (USB)
 - connector
 - location 1–48
 - pin assignments A–2

V

- vents 1–46, 1–47, 1–53
- video troubleshooting 2–16
- volume control buttons 1–52

W

- Windows application key 1–50
- Windows logo key 1–50
- workstation precautions 4–5